THE CARNEGIE FOUNDATION FOR THE ADVANCEMENT OF TEACHING

FIFTH ANNUAL REPORT

OF THE

PRESIDENT AND OF THE TREASURER

576 Fifth Avenue
New York City
October, 1910

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Henry Smith Pritchett, *ex officio*

Nicholas Murray Butler
Robert A. Franks
Arthur Twining Hadley
Alexander Crombie Humphreys
Jacob Gould Schurman
Frank Arthur Vanderlip

CONTENTS

REPORT OF THE PRESIDENT

PART I THE BUSINESS OF THE YEAR

PART II THE RELATIONS OF COLLEGES AND SECONDARY SCHOOLS

REPORT OF THE PRESIDENT

PART I

THE BUSINESS OF THE YEAR

REPORT OF THE PRESIDENT

To the Chairman and the Trustees of the Carnegie Foundation for the Advancement of Teaching:

In accordance with the provisions of the by-laws, I have the honor to present herewith the Fifth Annual Report of the Carnegie Foundation for the Advancement of Teaching, covering the administration of the trust for the year beginning October 1, 1909, and terminating September 30, 1910.

MEETING OF THE TRUSTEES

The annual meeting of the trustees was held in the offices of the Foundation on November 17, 1909, the vice-chairman presiding. The board accepted with expressions of appreciation and regret the resignation of President Eliot from the board of trustees, and elected as chairman of the board Provost Charles Custis Harrison. The board completed its full membership by electing to the two vacancies Charles R. Van Hise, president of the University of Wisconsin, and Ira Remsen, president of the Johns Hopkins University.

The board modified the rules of the Foundation in respect to the granting of retiring allowances. The rules, as amended, were published as an appendix to the Fourth Annual Report.

It will become the duty of the board at the next annual meeting to elect a trustee to fill the vacancy caused by the resignation of President L. Clark Seelye,[1] presented in the following communication:

Northampton, Mass., June 22, 1910.

To the Trustees of the Carnegie Foundation.

Honored and Dear Sirs: Having resigned the presidency of Smith College, it seems fitting that I resign, as I do herewith, my office as a trustee of the Carnegie Foundation.

I esteem it a great privilege that I have been able to coöperate until now in the organization of the Foundation, and that I have had the opportunity for such delightful personal relations with the other members of the board. Let me assure you of my high esteem and my confidence that the board will continue to be of inestimable service in promoting a higher grade of instruction in our colleges and universities.

Respectfully yours,

(*Signed*) L. Clark Seelye.

[1] At the annual meeting of the trustees held November 16, 1910, resignations were also presented by Hon. Woodrow Wilson, now Governor of New Jersey, and by Charles Custis Harrison, who retired in November from his position as provost of the University of Pennsylvania. The vacancies in the board were filled by the election of William Lowe Bryan, president of Indiana University, Abbott Lawrence Lowell, president of Harvard University, and James Monroe Taylor, president of Vassar College. Principal William Peterson of McGill University was elected chairman of the board.

THE EXECUTIVE COMMITTEE

The executive committee held five meetings during the fiscal year. The details of its actions concerning the admission of institutions, the granting of retiring allowances and of pensions, and of the investment of money, are given elsewhere in this report. Printed minutes of the meetings, containing a detailed statement of the receipts and expenditures of the Foundation, have been placed in the hands of the trustees as speedily as possible after each meeting.

The personnel of the committee has remained the same as in the preceding years, the two members whose terms expired, Nicholas Murray Butler and Alexander C. Humphreys, having been reëlected by the trustees for the term of three years. On January 20, 1910, the committee accepted the resignation of Mr. T. Morris Carnegie, who had been the treasurer of the Foundation since its organization. To fill the vacancy caused by Mr. Carnegie's resignation, the committee elected Mr. Robert A. Franks as treasurer until the next meeting of the trustees, and appointed Mr. John G. Bowman, secretary of the Foundation, to act as assistant treasurer.

The committee carefully considered the existing rules of the Foundation, and presented to the board of trustees, at its last annual meeting, a proposed revision. This revision, as previously stated, is contained in the appendix to the Fourth Annual Report. The committee also made one change in the practice of the Foundation. Hitherto it has been the custom to continue to the estate of a deceased beneficiary the payment for the current month in which the beneficiary died. This practice resulting in divergences, the committee resolved that hereafter retiring allowances and pensions shall be continued for thirty days after the death of each beneficiary.

The committee gave consideration to a more exact definition of the term "administrative officer" as eligible for retirement. While feeling the impossibility of defining with exactitude what administrative offices would in all cases render their occupants eligible for retiring allowances and what offices would not, the committee decided that it was clear that assistant treasurers and assistant bursars are not eligible, nor such purely business officers as superintendents of grounds, chief engineers, and the like. The committee further decided that the title "head of a house," as used in women's colleges, indicates an office which is not analogous to that of a teacher and hence would not make the holder eligible to a retiring allowance.

The committee gave much consideration to the cases of colleges which, although free from legal control by a denomination, yet continue an alliance through the designation by a denominational assembly of a minority of the board of trustees. The committee arrived at the conclusion that if a college is conducted without denominational partisanship, the selection in such manner of a minority of the governing board does not render the institution ineligible to the privileges of the Foundation. Under this decision, the committee admitted to the accepted list Wesleyan University at Middletown, Connecticut, one-fourth of the membership in whose board of trustees,

according to its recently amended charter, is elected by Conferences in the Middle Atlantic and the New England states of the Methodist Episcopal Church.

The committee also decided that a formal compliance with the requirements of the Foundation was not in itself sufficient to entitle an institution to admission to the accepted list. Frequent applications for admission have come before the committee from institutions which complied with the formal financial and educational standards of the Foundation, but which the committee has not felt able to admit to the accepted list. In many of these colleges the number of college students was equaled or exceeded by students in the preparatory school, the agricultural school, an elementary music school, and similar departments below college grade. The committee felt that only those institutions should share in the privileges of the Foundation which represent with clearness and distinctness the organization and conception of collegiate education.

The Russell Sage Institute of Pathology and the Meadville Theological Seminary presented applications to the Foundation for admission. The committee directed the president to inform these institutions that the endowment of the Foundation was intended primarily for colleges, and that the essential character of the former as a distinctively research body, and of the latter as concerned principally with professional education, put them outside of the spirit of the Foundation's charter.

The committee confirmed the advisability of making a thoroughgoing study of the public school systems of a few states as necessary to an accurate estimate of the educational problems involved in the colleges of those states. The president was authorized to undertake a study of the system of education of the state of Pennsylvania. He was also authorized to accept the official invitation of the Minister of Education of British Columbia to become a member of a commission to recommend a site for the proposed university of that province.

STATISTICS CONCERNING RETIRING ALLOWANCES SINCE THE BEGINNING OF THE FOUNDATION

THE tables which follow contain such complete information concerning the transactions of the Foundation in the payment of retiring allowances and pensions both for the current year and for preceding years that little need be said in explanation.

In the seventy-one accepted institutions there were allotted during the year thirty-nine retiring allowances and seven pensions. The Foundation paid out in the accepted institutions during the fiscal year $325,199.02.

During the same period there were allotted to individuals in institutions not on the accepted list thirteen retiring allowances and five pensions. During the year there were paid to individuals in institutions not on the accepted list $144,635.28. This sum represents a portion of the current income temporarily used for the benefit of pioneer teachers. As is elsewhere pointed out, the amount which can be allotted outside accepted institutions must steadily diminish in the future.

The tables which follow give in detail the cost of the retiring allowance system for each year since the beginning of the Foundation's work.

RETIRING ALLOWANCES VOTED DURING THE YEAR

1. IN ACCEPTED INSTITUTIONS

Institution	*Name*	*Academic Title*	*Date Effective*
California, University of	Albin Putzker, M.A.	Honorary Professor and Lecturer in German Literature	*July*, 1910
Carleton College	Harlan W. Page	Secretary and Treasurer	*July*, 1910
Columbia University	Charles Frederick Chandler, Ph.D., LL.D., Sc.D., M.D.	Mitchell Professor of Chemistry	*July*, 1911
	John Howard Van Amringe, Ph.D., L.H.D., LL.D.	Dean of Columbia College	*July*, 1910
Cornell University	Liberty Hyde Bailey, LL.D.	Director of College of Agriculture	
	Waterman T. Hewett, Ph.D.	Professor of German Language and Literature	*June*, 1910
	Lucien A. Wait	Professor of Mathematics	*June*, 1910
	Burt Green Wilder, M.D.	Professor of Neurology and Vertebrate Zoölogy	*June*, 1910
Dartmouth College	Martin Davis Bisbee, A.M.	Professor of Bibliography and Librarian	*July*, 1910
	Gabriel Campbell, D.D.	Professor of Moral and Intellectual Philosophy	*July*, 1910
Dickinson College	William B. Lindsay, Ph.D.	Professor of Chemistry	*June*, 1910
Drake University	David R. Dungan, A.M., LL.D.	Professor of Old and New Testament History	*Jan.*, 1911
	Bruce E. Shepperd, A.M., LL.D.	Professor of Moral and Mental Philosophy	*June*, 1911
Franklin College of Indiana	Rebecca J. Thompson, A.M.	Professor of Mathematics	*Sept.*, 1910
Harvard University	George Lincoln Goodale, A.M., M.D., LL.D.	Director of Botanic Garden	*Sept.*, 1909
	Jeremiah Smith, A.M., LL.D.	Story Professor of Law	*Sept.*, 1910
	John Trowbridge, S.D.	Rumford Professor and Director of Jefferson Physical Laboratory	*Sept.*, 1910
Johns Hopkins University	William Hand Browne, M.D.	Professor of English Literature	*Sept.*, 1910
Leland Stanford Junior University	Melville Best Anderson, A.M., LL.D.	Professor of English Literature	*Aug.*, 1910
Marietta College	Martin R. Andrews, A.M.	Professor of Political Science	*July*, 1910
Massachusetts Institute of Technology	George A. Osborne, S.B.	Walker Professor of Mathematics	*July*, 1910
McGill University	A. Judson Eaton, M.A., Ph.D.	Associate Professor of Classics	*Sept.*, 1911
	T. Wesley Mills, M.A., M.D., F.R.S.C.	Assistant Professor of Physiology	
Missouri, University of	Edward A. Allen, Litt.D.	Professor of English	*Sept.*, 1910
	Millard L. Lipscomb, A.M.	Professor of Physics	*July*, 1910
	John Rutledge Scott, A.M.	Professor of Elocution	*Sept.*, 1910
New York University	Henry M. MacCracken, D.D., LL.D.	Chancellor	*July*, 1910
Princeton University	Henry B. Cornwall, E.M., Ph.D.	Professor of Chemistry and Mineralogy	*Aug.*, 1910
Purdue University	Erastus Test, M.S., M.D.	Professor of Mathematics	*July*, 1910
Smith College	Laurenus Clark Seelye, D.D., LL.D.	President	*Sept.*, 1910
Vassar College	Frances A. Wood	Librarian	
Washington University	Calvin M. Woodward, Ph.D., LL.D.	Professor of Mathematics and Dean of School of Engineering and Architecture	*June*, 1910
Wellesley College	Mary Alice Willcox, Ph.D.	Professor of Zoölogy	
Wisconsin, University of	John Charles Freeman, LL.D.	Professor of English Literature	*July*, 1910
Yale University	Charles Henry Smith, LL.D.	Larned Professor of American History	*July*, 1910

TEMPORARY ALLOWANCES FOR DISABILITY

Institution	*Name*	*Academic Title*	*Date Effective*
CINCINNATI, UNIVERSITY OF	MARCO P. LIBERMA	Professor of Romance Languages	*June*, 1910
LELAND STANFORD JUNIOR UNIVERSITY	JOHN A. BERGSTRÖM, PH.D.*	Professor of Education	
MCGILL UNIVERSITY	D. P. PENHALLOW, D.SC., F.R.S.C., F.G.S.A.	Professor of Botany	*Jan.*, 1910
WELLESLEY COLLEGE	KATHARINE COMAN	Professor of Political Economy and Social Science	*July*, 1910

WIDOWS

Institution	*Name*	*Husband's Title*	*Date Effective*
BOWDOIN COLLEGE	MRS. FRANKLIN CLEMENT ROBINSON	Professor of Chemistry and Mineralogy and Josiah Little Professor of Natural Science	*June*, 1910
CALIFORNIA, UNIVERSITY OF	MRS. WILLARD BRADLEY RISING	Professor of Chemistry	*Mar.*, 1910
	MRS. IRVING STRINGHAM	Professor of Mathematics	*Nov.*, 1909
HARVARD UNIVERSITY	MRS. JAMES BARR AMES	Professor of Law, and Dean of the Faculty of Law	*Feb.*, 1910
RIPON COLLEGE	MRS. EDWARD HUNTINGTON MERRELL	Professor of Philosophy	*Mar.*, 1910
TUFTS COLLEGE	MRS. AMOS EMERSON DOLBEAR	Professor of Physics	*Mar.*, 1910
YALE UNIVERSITY	MRS. WILLIAM GRAHAM SUMNER	Professor of Political and Social Science	*May*, 1910

*Deceased.

2. NOT IN ACCEPTED INSTITUTIONS

Institution	*Name*	*Academic Title*	*Date Effective*
Elmira College, Elmira, N. Y.	Cornelia Porter Dwight, M.A.	Professor of Mathematics	*July*, 1910
Hanover College, Hanover, Ind.	P. H. K. McComb, D.D.	Professor of History and Political Science	*Jan.*, 1910
Illinois, University of, Urbana	William L. Pillsbury	Registrar and Secretary	*Oct.*, 1910
Iowa, State University of, Iowa City	Samuel Hayes, LL.B.	Professor of Law	*Feb.*, 1910
Kansas, University of, Lawrence	Ephraim Miller, PH.D.	Professor of Mathematics and Astronomy	*Sept.*, 1910
Massachusetts Agricultural College, Amherst	Charles H. Fernald, PH.D.	Professor of Zoölogy	*Sept.*, 1910
Mississippi, University of, University P. O.	John Greer Deupree, A.M., LL.D.	Professor of Greek	*Sept.*, 1910
Ohio State University, Columbus	William Henry Scott, LL.D.	Professor of Philosophy	*July*, 1910
Nashville, University of, Nashville, Tenn.	James D. Porter, A.M., LL.D.	Chancellor	*Nov.*, 1909
Oregon, University of, Eugene	Benjamin J. Hawthorne, A.M.	Professor of Psychology	*Oct.*, 1910
Virginia, University of, Charlottesville	William Morris Fontaine, M.A.	Professor of Natural History and Geology	*Sept.*, 1910

TEMPORARY ALLOWANCES FOR DISABILITY

Institution	*Name*	*Academic Title*	*Date Effective*
Hiram College, Hiram, O.	Edmund Burritt Wakefield, A.M.	Professor of Political Science and of Biblical Theology	*Jan.*, 1910
Kansas, University of, Lawrence	Archibald Hogg, LL.B.	Assistant Professor of Philosophy	*Feb.*, 1910

WIDOWS

Institution	*Name*	*Husband's Title*	*Date Effective*
Clemson Agricultural College, Clemson College, S. C.	Mrs. James Stanley Newman	Professor of Agriculture	*June*, 1910
Jefferson Medical College, Philadelphia, Pa.	Mrs. Henry Cadwalader Chapman	Professor of Medicine and Medical Jurisprudence	*Oct.*, 1909
North Carolina, University of, Chapel Hill	Mrs. Eben Alexander	Professor of Greek and Dean of the University	*Mar.*, 1910
Ohio State University, Columbus	Mrs. William Ashbrook Kellerman	Professor of Botany	*Jan.*, 1910
United States Bureau of Education	Mrs. William Torrey Harris	Commissioner	*Dec.*, 1909

DATA CONCERNING RETIRING ALLOWANCES IN FORCE

SEPTEMBER 30, 1910

GRANTEES	Number of Allowances in Force					Average Age at Date of Retirement				Average Length of Service				Amount of Average Allowance				TOTAL GRANT IN FORCE SEPT. 30 1910
	On basis of age	*On basis of service*	*On basis of permanent disability*	*Temporary grants*	*Total*	*Retired on basis of age*	*On basis of service*	*On basis of permanent disability*	*In receipt of temporary grants*	*Retired on basis of age*	*On basis of service*	*On basis of permanent disability*	*In receipt of temporary grants*	*Retired on basis of age*	*On basis of service*	*On basis of permanent disability*	*Temporary grants*	
PROFESSORS AND OFFICERS IN ACCEPTED INSTITUTIONS .	114	75	2	6	197	69.6	64.3	58.5	47.8	31.5	34.9	26.5	19.8	$1688.07	$1863.36	$1257.50	$1333.33	$345,370
PROFESSORS AND OFFICERS IN UNACCEPTED INSTITUTIONS	48	36	3	5	92	70.6	66.7	60.3	51.4	30.5	37.3	35	21.2	$1261.67	$1540.56	$1140.00	$1280.00	$125,870
WIDOWS OF PROFESSORS AND OFFICERS IN ACCEPTED INSTITUTIONS					40									$918.75				$36,750
WIDOWS OF PROFESSORS AND OFFICERS IN UNACCEPTED INSTITUTIONS					17									$769.41				$13,080
TOTAL	162	111	5	11	346									GENERAL AVERAGE OF RETIRING ALLOWANCES $1628.41				$521,070

SUMMARY OF DATA CONCERNING RETIRING ALLOWANCES GRANTED DURING THE FISCAL YEAR

OCTOBER 1, 1909, TO SEPTEMBER 30, 1910

GRANTEES	Number of Allowances Granted					Average Age at Date of Retirement				Average Length of Service				Number of deaths during the year	Amount of Average Allowance				TOTAL GRANT FOR THE YEAR
	On basis of age	*On basis of service*	*On basis of permanent disability*	*Temporary grants*	*Total*	*Retired on basis of age*	*On basis of service*	*On basis of permanent disability*	*In receipt of temporary grants*	*Retired on basis of age*	*On basis of service*	*On basis of permanent disability*	*In receipt of temporary grants*		*Retired on basis of age*	*On basis of service*	*On basis of permanent disability*	*Temporary grants*	
PROFESSORS AND OFFICERS IN ACCEPTED INSTITUTIONS	26	7	2	4	39	69.9	58.3	58.5	47.5	35.9	29.6	26.5	23.5	11	$2165.96	$1831.43	$1257.50	$1750.00	$78,650
PROFESSORS AND OFFICERS IN UNACCEPTED INSTITUTIONS	10		1	2	13	71.4		64	49.5	26.9		32	17.5	12	$1697.00		$720.00	$1200.00	$20,090
WIDOWS OF PROFESSORS IN ACCEPTED INSTITUTIONS					7										$1003.57				$7,025
WIDOWS OF PROFESSORS AND OFFICERS IN UNACCEPTED INSTITUTIONS					5										$1012.00				$5,060
TOTAL	36	7	3	6	64								*	23	GENERAL AVERAGE OF RETIRING ALLOWANCES $1898.85				$110,825

RETIRING ALLOWANCES

NUMBER OF GRANTS

Year	Institutions	Age	Service	Permanent Disability	Temporary Grants	Widows	Total	Deduct		Net Increase		Allowances and Pensions in Force at End of Year
								For Deaths	For Discontinuances			
1906[1]	Accepted Institutions	21	18		7	5	51			51		
	Unaccepted Institutions	18	15		4	3	40	1		39	90	90
1906-7	Accepted Institutions	24	14		2	7	47	9		38		
	Unaccepted Institutions	8	16		3	1	28	8		20	58	148
1907-8	Accepted Institutions	18	18		4	9	49	8	1	40		
	Unaccepted Institutions	11	9		4	6	30	5	1	24	64	212
1908-9	Accepted Institutions	29	25		8	13	75	5		70		
	Unaccepted Institutions	18	15		4	3	40	2	1	37	107	319
1909-10	Accepted Institutions	26	7	2	4	7	46	11	11	24		
	Unaccepted Institutions	10		1	2	5	18	12	3	3	27	346
Totals		183	137	3	42	59	424	61	17	346		

[1] July 1 to September 30.

LOAD OF RETIRING ALLOWANCES ASSUMED

Year	Institutions	*Age*	*Service*	*Permanent Disability*	*Temporary Grants*	*Widows*	*Total*	Deduct		*Net Increase*		*Annual Load at End of Year*
								For Deaths	*For Discontinuances*			
1906[1]	Accepted	$28,545	$34,915		$9,975	$4,500	$77,935			$77,935		
	Unaccepted	22,330	20,145		5,600	2,170	50,245	$1,335		48,910	$126,845	$126,845
1906–7	Accepted	36,750	24,435		2,540	6,165	69,890	17,970		$51,920		
	Unaccepted	11,040	23,355		3,370	500	38,265	9,650		28,615	80,535	207,380
1907–8	Accepted	28,200	27,450		9,600	8,675	73,925	4,480	$600	$68,845		
	Unaccepted	14,785	14,975		6,000	4,080	39,840	11,800	960	27,080	95,925	303,505
1908–9	Accepted	47,855	46,490		12,485	11,700	118,530	7,685		$110,845		
	Unaccepted	20,540	30,500		5,100	2,220	58,360	6,190	1,500	52,170	163,015	466,320
1909–10	Accepted	56,315	12,820	$2,515	7,000	7,025	85,675	17,830	19,370	$48,475		
	Unaccepted	16,970		720	2,400	5,060	25,150	14,975	3,900	6,275	54,750	521,070

[1] June 1 to September 30.

EXPENDITURE IN RETIRING ALLOWANCES

ACCEPTED INSTITUTIONS

Year	Number of Institutions	Number of Teachers in Faculties	Number of Retired Teachers on Roll	Average Age at Retirement on Basis of Age	Amount of Retiring Allowances Paid	Number of Widows Pensioned	Amount of Widows' Pensions Paid	Total Amount of Allowances and Pensions Voted	Total Amount Paid
1906[1]	52	2,261	46	71	$15,478.53	5	$1,124.97	$77,935	$16,603.50
1906-7	55	2,309	88	70	77,574.09	12	8,039.06	147,280	85,613.15
1907-8	62	2,444	124	70	146,140.47	19	14,989.48	208,370	161,129.95
1908-9	67	2,966	185	69.7	206,472.57	33	24,545.00	321,670	231,017.57
1909-10	71	3,512	198	69.6	291,403.98	40	33,795.04	419,320	325,199.02

UNACCEPTED INSTITUTIONS

1906[1]	32		37	70	$6,474.53	3	$124.98	$50,245	$6,599.51
1906-7	48		55	71.6	47,654.11	4	2,420.00	89,675	50,074.11
1907-8	59		66	70.5	80,134.26	10	5,378.20	112,975	85,512.46
1908-9	62		100	69.8	104,536.66	13	8,316.67	165,325	112,853.33
1909-10	70		92	70.6	132,497.51	17	12,137.77	157,825	144,635.28

[1] June 1 to September 30.

GEOGRAPHICAL DISTRIBUTION
OF RETIRING ALLOWANCES NOW IN FORCE

State, Territory, or Province	Number of allowances granted			Deaths	Temporary allowances discontinued	Number of allowances in force
	In accepted institutions	*In unaccepted institutions*	*Total*			
NORTH ATLANTIC DIVISION						
Maine	7	3	10	1	1	8
New Hampshire	4		4			4
Vermont	2		2			2
Massachusetts	50	2	52	8	3	41
Rhode Island		1	1			1
Connecticut	20	3	23	2		21
New York	58	7	65	11	2	52
New Jersey	13		13	3	1	9
Pennsylvania	16	9	25	5	3	17
Total			195			
SOUTH ATLANTIC DIVISION						
Maryland	3		3			3
District of Columbia	2	5	7	2		5
Virginia	2	10	12	4		8
West Virginia		4	4			4
North Carolina		6	6	2		4
South Carolina		7	7	3		4
Georgia		3	3			3
Florida		3	3			3
Total			45			
SOUTH CENTRAL DIVISION						
Kentucky	4	4	8	1		7
Tennessee		7	7			7
Alabama		4	4			4
Mississippi		2	2			2
Louisiana	10		10	1		9
Total			31			
NORTH CENTRAL DIVISION						
Ohio	13	15	28	3	1	24
Indiana	6	5	11	1		10
Illinois	2	4	6	1	1	4
Michigan	4	4	8	1		7
Wisconsin	12		12	1		11
Minnesota	8	1	9	1		8
Iowa	5	13	18	3	3	12
Missouri	10	4	14	1		13
North Dakota		3	3	2		1
Nebraska		1	1			1
Kansas		3	3			3
Total			113			
WESTERN DIVISION						
Montana		1	1			1
Colorado	2	3	5		1	4
California	8	8	16	3	1	12
Oregon		3	3			3
Total			25			
THE DOMINION OF CANADA						
Ontario		1	1			1
Quebec	7		7			7
Nova Scotia	1		1			1
New Brunswick		3	3	1		2
Prince Edward Island		1	1			1
Total			13			
NEWFOUNDLAND						
		2	2			2
Total			2			
Grand Total	269	155	424	61	17	346

THE ADMISSION OF INSTITUTIONS TO THE ACCEPTED LIST

DURING the year four institutions have been admitted to the accepted list of the Foundation. These are the University of California, Indiana University and Purdue University as component parts of a single state university, and Wesleyan University. Before giving in detail the circumstances of their admission, it may be well to discuss briefly the questions involved in the task of admitting these institutions and of considering the applications of others.

The regulations under which the executive committee may invite colleges and universities to share in the benefits of the Foundation have been published from time to time. But as greater perspective is gained in the administration of the Foundation and as educational data are collected, other considerations in addition to the regulations adopted arise which require study. All such problems should be viewed at this time in the light of the experience of the past five years.

At the organization of the Foundation it was determined that the retiring allowances should not be offered to college teachers personally, but that colleges and universities should be invited, on behalf of their teaching staff, to participate as institutions in the system of retiring allowances to be maintained by the Foundation. This plan involved an accepted list of colleges, universities, and technical schools, the teachers and officers of which might look forward with certainty to the protection in old age of retiring allowances. The trustees felt, however, at that time that the income of the fund might provide at once for a large number of pioneers in education who were beyond years of active service, but who had spent their lives in colleges which could not, at least for years to come, be placed on the accepted list. Such a policy has been liberally followed. One hundred and fifty-five allowances have been granted to teachers in institutions not upon the accepted list, and although many of these teachers have since died, the cost last year of the allowances thus granted was more than $144,000.

On June 7, 1906, an accepted list of forty-five institutions was announced. Since that date twenty-eight institutions have been added to the list and two have been dropped, making a total of seventy-one. As the group of institutions sharing regularly in the benefits of the Foundation has increased, naturally the number of outside allowances has decreased, and by this process the administration of the Foundation has tended steadily toward the fundamental conception. On page 14 are given data in tabular form showing this development.

On May 5, 1910, the executive committee felt that the time had come to adopt the following resolution:

> WHEREAS the Foundation is now possessed of accurate information concerning the standards and work of the various colleges, and
>
> WHEREAS the expenditure of the income of the Foundation is such that it must now restrict the limits within which it can confer its benefits,

VOTED, That in the judgment of the executive committee it is not expedient in the future to grant retiring allowances outside of the accepted list, except in cases of especial significance in institutions whose standards are so advanced that within a short time the institution will be ready to apply for admission to the Foundation.

In the past, allowances and pensions have been granted in one hundred and forty-four colleges and universities. In other words, seventy-six institutions outside of the accepted list have enjoyed, at least in part, the benefits of a retiring allowance system. Because of this wide distribution of allowances many of these institutions have felt no particular disadvantage in not being included in the accepted list. The immediate result of the action just stated, however, is that the Foundation is asked urgently to pass upon the applications of about sixty institutions which believe themselves eligible at this time for admission. A large proportion of these sixty institutions meet, technically, the requirements of the Foundation. The executive committee has felt, however, that there are certain questions which should be answered clearly before action is taken upon any of the applications. These questions touch closely the ideals of social and intellectual development and the educational need for which each of the several colleges stands. Separated into two groups, the considerations may be stated in a general way as follows:

Group I

1. With what exactitude and judgment are the requirements for admission enforced? Is the standard weakened by provisions for conditioned and special students?
2. How are the requirements for admission adjusted to the tributary high schools and academies of the college?
3. Is the college essentially an institution of higher education? What proportion of the students are of college grade?
4. If the college supports or shelters one or more professional schools, are these schools of creditable service to the professions?
5. Are the files of the registrar and the accounts of the treasurer kept in businesslike form?

Group II

1. Geographically, what is the need for a college in its locality? What other colleges or universities, if any, contribute to the need which the college seeks to fulfil?
2. In view of its geographical location, what is the probable future of the college?
3. What proportion of the income of the Foundation is now being paid to colleges and universities in the same state?

It is not possible at this time to formulate these questions into fixed regulations, nor is it necessary. But some such considerations must necessarily affect the delib-

eration of trustees who have a limited endowment which they are bound to use for the interest of all sections of the country.

The desire to distribute the income of the Foundation equitably throughout the country compels the trustees at this moment to look forward to more or less distant contingencies. In the south to-day, for example, there are only three institutions on the accepted list, Johns Hopkins University, Tulane University, and Central University of Kentucky at Danville. Education in the south is in a transitional state; progress is being made with great energy, and it is a question of but a short time when a fair number of the colleges and universities of these states will meet the standards of the Foundation, both technically and in spirit. Realizing the quickly developing conditions in the south, the executive committee has hesitated to admit colleges in states or communities where for local or denominational reasons they have multiplied beyond reasonable demand, and where a full portion of the benefits of the Foundation is already being distributed. In other words, out of the limited number of invitations which later may be extended to colleges, a fair proportion should be reserved for the south.

In the state of Ohio there are some fifty-one chartered colleges and universities, more than are possessed by the British Islands with a population nine times as great. That this excess of colleges is due to conditions local to Ohio and not existing in such exaggerated form even in neighboring states of the middle west is shown by the fact that in Michigan, with a population more than one-half that of Ohio, there are only eleven institutions seeking to give college courses. As the Foundation already has five accepted institutions in Ohio and must consider the possibility of a state university's complying with its requirements, it is questionable whether any privately endowed college of this state can for some years to come be added to the accepted list.

In some instances the problem presented by the application of a college is purely local. Thus, the city of Galesburg, in Illinois, with a population of 18,000, is the site of Knox College and of Lombard College. It is obviously not in the best interest of education that two colleges should compete with each other in a community of this size, especially since the reasons which caused their separate establishment have passed away. The Foundation therefore is not ready at this time to give both institutions a place upon its accepted list, although Knox College is the only institution in the state of Illinois upon that list.

Even in the newer parts of the Union an over-supply of colleges occasionally exists. At present southern California is not a thickly settled region, yet in the southern half of Los Angeles County are five colleges: Whittier College, Pomona College, Lordsburg College, Occidental College, and the University of Southern California.

The questions raised under Group I have all been discussed in the earlier reports of the Foundation. The first three relate to articulation between colleges and high

schools, a problem which is the general subject of Part II of this report. I venture again, however, to urge upon colleges the duty of formulating clearly the purposes for which they exist. West of the Allegheny mountains, with a few exceptions, the smaller institutions are combinations of the college and the secondary school. In some cases the grammar grades are also included. This mixture necessarily makes difficult that spirit and that intellectual exchange between faculty and students which distinguish a true college. A recognition of this fact is rapidly gaining ground. In the stronger colleges where a preparatory department is still maintained, this department is separated from the college. The academy of Beloit College has recently been discontinued, and such action is contemplated by other colleges in this region. In the eastern states few colleges maintain preparatory departments; in the west the following colleges have no such departments:

Beloit College
University of California
Carleton College
Case School of Applied Science
University of Chicago
University of Cincinnati
University of Colorado
Franklin College of Indiana
Indiana University
State University of Iowa
University of Kansas
Kenyon College
Knox College
Lawrence College
Leland Stanford Junior University
University of Michigan
University of Minnesota
University of Missouri
University of Nebraska
University of North Dakota
Ohio State University
University of Oregon
Rose Polytechnic Institute
University of Washington
Western Reserve University
University of Wisconsin

Some of the most ambitious colleges in the west present a large enrolment made up of a small and perhaps creditable college at the top, with a large preparatory school and with a large music school in addition—all classes of pupils mingling together in one student body. For many years, colleges in the new western states were justified in maintaining preparatory schools in the absence of an adequate number of good high schools. For the stronger western states this period has now passed; and the colleges owe it not alone to the educational system of their respective states, but to their own students, to preserve some fair intellectual homogeneity in the students brought together. The very meaning and purpose of a college is directly dependent on the presence of a student body fairly homogeneous. The moment a student body is made up partly of college students, partly of high school pupils, and partly of music pupils, the ideals of a college are practically abandoned. There is no more important question to-day for colleges to face than this—What is a college for?

Such efforts to combine incongruous phases of educational work are due usually to the attempt of the institution to serve at the same time both local needs (which are usually those of a good high school) and to offer college facilities for a much

larger area. The time has come when an institution calling itself a college should choose definitely between these widely divergent fields of educational effort. In the attempt to do many things, they fail to offer to the students who seek college life and college opportunity the essentials which make up a college life. "What Harvard and Yale are to New England," reads the bulletin of one ambitious college, "this college hopes to be to the North West." At the same time, pupils are urged to come to its academy on the ground that "the academy has the advantage of college life and activity." A similar inducement is offered to attend the music school of the college. The same view of the situation is suggested by the following paragraph from the catalogue of another college in the far west:

> "Persons thinking of reviewing common branches, or of preparing themselves to teach school, or who may wish to take a business course, including bookkeeping and shorthand, or who may be interested in the work of any other department of the college, are cordially invited to write for further information."

It will be clear to any thoughtful person that the function of the college has in such instances been so confused with incongruous (even though well meant) educational effort that the primary work of the college is impossible, even if other conditions were met, which is of course generally not the case. The Foundation has felt itself compelled to offer the facilities of its endowment, limited as they are, to institutions whose work and purpose have so far developed as to assure definitely the spirit and atmosphere of a college.

University of California

The University of California stands to-day as one of the strong universities of the United States, consistently related to the high schools of its state and working in harmony with them. The institution, now in the forty-second year of its existence, presents an interesting record, first, in its rapid material advancement, and, second, in its leadership looking toward administrative unity for all the public schools of California. A brief account of this development of the university follows.

As early as the year 1850 the constitution drawn up by the people of the new possession of California contained provision for the support of education by creating as a perpetual fund the land already granted to California by the United States. To this fund later was added the land granted by Congress under the Morrill act, which produced in California more returns per acre than in any other state except under Ezra Cornell's management in New York. To secure the benefit of this act, the legislature of 1866 established an Agricultural, Mining and Mechanic Arts College, and the directors selected provisionally a site for the institution in Berkeley a little north of the College of California, which had been founded there in 1853.

The trustees of the College of California soon offered all of their property to the state, upon condition that there should be established in Berkeley a University of

California. This college had been founded as an academy by the Reverend Henry Durant, Yale '27, under the auspices of the Presbyterians and Congregationalists, the first college class being graduated in 1864. Mr. Durant had made the long sea journey to California with the idea of founding a university, and his academy had been opened the same year that he landed in San Francisco. The directors of the agricultural college accepted the offer of the college trustees, and in 1868 the legislature passed an act creating the University of California, and giving to the students already graduated from the College of California the rank of university alumni. Mr. Durant became the university's first president.

In 1887 the legislature secured to the university a permanent income by granting for its use one cent annually upon each one hundred dollars' worth of the assessed taxable property within the state. In 1897 this grant was increased to two cents, and in the year 1907–08 the proceeds of this tax and of other appropriations by the state amounted to over $650,000, and the receipts from about four million dollars of endowment and from other sources brought the total annual income of the university to a sum in excess of one million dollars. The university also has been the recipient of numerous gifts from individuals. Notable among these was the gift of Mrs. Phoebe A. Hearst, for the architectural development of the university. In 1898, at Mrs. Hearst's expense, the architects of the world were invited to submit plans for the future use of the university property. The plan submitted by Monsieur Emile Bénard of Paris was eventually selected after successive competitions, and in accordance with its provisions five buildings have already been erected.

Coincident with the liberal support given to the university, the institution grasped the clear conception of its duty to the state. It appreciated the vital relation between intellectual efficiency and civic well-being, and that much of its usefulness in the formative period of the state lay in building a proper administrative structure for grammar schools, high schools, and colleges alike. The problem was complex. Although the common school education had been provided for by the first constitution of the state, and the university was established as early as 1868, high school education, the connecting link between the two, was not a subject for state school taxation until the first year of the twentieth century. The second constitution adopted by the people of California, in 1878, while permitting the establishment and support of high schools by the local authorities or by the legislature, contained a provision that "the entire revenue derived from the state school fund and the state school tax shall be applied exclusively to the support of primary and grammar grades." This in practice relegated high school education to the support of municipal or district taxation.

Notwithstanding this denial of state assistance, the high schools increased in number, union high schools being established through the joint action of contiguous country districts which were too poor to support such schools individually. Each school developed independently of all other schools, and their curricula differed

widely. The high schools variously extended down into grammar grades and up into college training. In 1884 the university endeavored to unify these schools by introducing a system of accrediting whereby a student who had received a diploma from an approved school should, upon the personal recommendation of the principal of that school, be admitted without examination to the university in those subjects in which the school was approved. Although friendly coöperation was the only power the university had in this task, the effort fixed the curricula of the high schools. In 1885 three schools requested an investigation by the university in order to be accredited; in 1909, out of the 190 high schools in the state, 122 had such curricula and teaching as enabled them to be ranked as fully accredited schools.

In 1901 the people amended the constitution so as to enable the legislature to levy a special state school tax for the support of high schools, and to set aside all the revenue derived from such special tax for the exclusive use of these schools. Under this constitutional authorization the legislature, in 1903, passed an act making provision for high school maintenance and growth. Since that time the educational system of California has been a homogeneous one. The character of high school teaching has been especially helped by the rule, adopted in 1895 upon the recommendation of a committee of the State Teachers' Association, that no one should obtain a high school certificate to teach who had not received the equivalent of a college education.

The scope of the university at the present day, the standards of admission to the various departments, the student registration, and the number in the faculties of the various departments are given in the following table:

Department	*Requirements for Admission*	*Student Registration*	*Number of Professors*	*Number on Instructing Staff*
Colleges of Letters, Sciences, and Engineering	15 *units*	2680	149	317
Graduate School	*Bachelor's degree*	396		
Hastings College of Law	15 *units*[1]	100	8	13
Medical Department	2 *years of college*	35	21	66
Dental Department	15 *units*	53	7	29
College of Pharmacy	8 *units*	67	4	7
Total		3331	189	432

[1] 1910 to 1912, entrance requirements 15 units; 1912 to 1913, entrance requirements 1 year of college; after 1913, entrance requirements 2 years of college.

A request for the admission of the University of California was made by the Governor and board of regents on June 9, 1908, and approved by the legislature of California in a concurrent resolution adopted in the Assembly on January 15, and in the Senate on January 18, 1909, and transmitted to the Foundation under the great seal of the state. The university was, on June 9, 1910, invited to share in the retiring allowance system of the Carnegie Foundation.

Indiana University and Purdue University

Indiana University and Purdue University taken together constitute to-day the culmination of the educational system of Indiana and form in effect a single strong state university. Each now articulates with the high schools of the state, and each offers groups of related courses which are not duplicated in the other. Liberal arts, education, law, and medicine are taught at Indiana University; applied science, engineering, agriculture, and pharmacy are taught at Purdue.

The present harmonious status of these institutions with relation to the high schools of the state and with relation to each other is the result of a long and interrupted development. As early as 1816 the constitution of the state as first adopted laid upon the General Assembly the duty to provide by law for "a general system of education ascending in a regular gradation from township schools to a state university." This was the earliest expression of any state legislation looking toward a complete and articulated system of education. For forty years this conception, while still formative in the state, remained unconfused. Then in response to the increased demand for higher education came the establishment of Purdue University in 1869, and, following that, a degree of activity amounting to rivalry, some duplication of work, and a weak effort on the part of both institutions to build up the high schools. An outline of this development follows.

In 1806 the territorial legislature of Indiana appropriated the township of land given by the federal government for the use of a seminary of learning to the establishment of Vincennes University in the town of that name, under a self-perpetuating board of trustees. In 1820, however, the state legislature took away this property and conveyed it to the Indiana Seminary established by that act in Bloomington, and although the Supreme Court of the United States in 1852 decided that the township had been the indefeasible property of the trustees of the Vincennes University, that institution has remained without complete redress.

The Indiana Seminary, thus established and endowed by the state, was opened for students in 1824, and in 1828 was raised by the legislature to the rank of a college. In 1838 it was given its present title of Indiana University. In 1867 the legislature for the first time supplemented the income derived from the proceeds of the federal land grants by appropriating annually out of the state treasury $8000 for the university. In 1883 a permanent endowment was raised by the legislature setting aside for this purpose, for the following thirteen years, one-half of one cent upon each one hundred dollars' worth of assessed taxable property in the state. In 1903 the university was granted one cent upon each one hundred dollars' worth of the state's assessed property. By the same law provision was made for a smaller assessment for the State Normal School, and an assessment equal to that of Indiana University for Purdue University.

Purdue University is the result of the Morrill land grant of 1862. Upon receipt

of that fund John Purdue, a wealthy citizen of Tippecanoe County, offered to the state, through the trustees created to establish an agricultural college, $150,000 upon condition that the college should be located in Tippecanoe County. The county board of commissioners also offered $50,000, and other citizens of the county joined in an offer of one hundred acres of land, valued at between $30,000 and $40,000, upon the same condition. The legislature accepted these offers and located the agricultural and mechanic arts college at Lafayette.

For many years after its foundation the educational status of Purdue University in the Indiana state system was not fixed. The position of Indiana University was weakened by the new competitor, and for a time the original conception of a state system was lost in institutional ambition. Like many weak state universities of the time, both institutions received students of secondary grade, and even as late as 1905 the entrance requirements of Purdue did not amount to more than two years of high school work. For a time there was a tendency to the establishment of parallel courses, which reached its culmination in the efforts of both institutions to support medical departments.

Such a situation, in which two universities supported by the same state compete with each other, was not unlike that which still exists in Iowa, Washington, Kansas, and Ohio. Indiana and Iowa now thoroughly appreciate that the condition is an indefensible one. Indiana has faced the problem, and high credit is due to the administration of each of the two universities for their present disinterested service to the state. They have joined in one aim looking toward reasonable coördination.

For two reasons the two universities of Indiana were not admitted to the accepted list of the Foundation with the first group of state universities in 1909: first, it was not evident at that time that the institutions were coördinating parts of the state system of education; second, the backward condition of the medical department of Indiana University, part of which was at Bloomington and part at Indianapolis. The university has now placed the standard of the medical department upon a two-year college basis, and has recently gained complete control of the clinical department at Indianapolis. The policy of the board of trustees of Indiana University toward the medical department is explained in the following memorandum, which was adopted by the board March 8, 1910, and forwarded to the Foundation:

> The trustees of Indiana University formally established the School of Medicine at Bloomington in 1903. From time to time before and after that date they were solicited to enter into affiliation with one or another school of medicine at Indianapolis. As the records of this board show, these solicitations were repeatedly declined on the ground that the trustees could not then see their way clear to the maintenance at Indianapolis of a medical school upon a university basis. When finally it appeared feasible to undertake the larger work, the trustees officially announced that any such school of medicine must be an integral part of the university, wholly under its control and supported financially by

the state as liberally as any other part of the university. These positions were maintained throughout the troubled period which ended with the union of all the medical schools in the state (except that at Valparaiso) under the direction of the university. When, for example, in 1907, the legislature was urged to establish a school of medicine under other auspices, with the guarantee that no money would then or afterwards be asked from the state, the trustees of the university, by their representatives, at a public legislative hearing and otherwise declared that they would not undertake to maintain a medical school to be conducted without adequate financial support from the state. Having made this official declaration at the time when it was most perilous to do so, the trustees have no reason to take a backward step at this time when there is nothing to fear.

In view of the present backward state of the medical department at Indianapolis, the needs of that department will be especially urged at the coming session of the legislature. The trustees will not rest from the efforts which have occupied them so largely throughout the past six years until they have established in the state a medical school in which every department, whether at Indianapolis or Bloomington, has been placed upon a thoroughly good university basis. In determining the details of this development, the trustees will seek as in all other departments the best obtainable men as teachers, and the counsel of the best authorities in medical education throughout the country. Meanwhile the best assurance of the convictions and plans of the trustees is to be found in those parts of the medical school which they have fully established.

The plans of the trustees include the following details:

(1) Daily supervision of the work at Indianapolis by the dean.

(2) The whole time of competent men as directors of the dispensary clinics and of the hospital clinics.

(3) Competent and prompt service for clinicians from the clinical laboratories.

(4) Thoroughly modern equipment and instruction in all the laboratory courses.

(5) A selection of the best available men for clinical positions as rapidly as we judge the situation will permit.

The following quotations from letters of President Bryan of Indiana University and of President Stone of Purdue University indicate the spirit in which at this time the two universities coöperate.

[President Bryan, April 27, 1908]

It may have come to your notice that Purdue and Indiana have had some sharp rivalry. I judge that such rivalries are not unlikely to appear between institutions which are close together. I wish you to know, however, that the bonds which unite these institutions are much deeper than the rivalries. I wish you to know that the authorities of the two institutions are very desirous of eliminating so far as possible every form of injurious competition and to magnify in every way the possibilities of coöperation. Substantial proof of this desire has been given in the recent amicable arrangement concerning medical education in Indiana.

[President Stone, May 1, 1908]

In their educational work, therefore, the two institutions do not compete or duplicate, but supplement each other to the end that the state possesses in the two the various departments which in many states are combined in a single state university.

The relations of the two universities are entirely friendly and in full recognition of their mutual duty to perform for the state the functions of a single great university without waste or conflict.

The data given in the following table indicate the relation of the two universities to the high schools of the state. An examination of the records of students admitted last year showed at both institutions a careful protection of entrance standards.

	Stated Requirements for Admission in Units	*Number of Students admitted to Freshman Class, 1909.*	*Number of Graduates of High Schools or Academies*	*Number admitted from High Schools without Graduation*	*Number admitted with Conditions*	*Percentage of Conditioned Students*	*Number Deficient in 3 or more Units*	*Percentage Deficient in 3 or more Units*	*Number of Special Students*	*Number transferred from other Colleges*	*Total Student Registration*
Indiana University	16	700	432	18	78	11	49	7	50	200	1750
Purdue University	15	489	397	27	29	4.5	3	.004	24	41	1616

On December 31, 1908, the trustees of Indiana University requested its admission to the list of accepted institutions of the Foundation, and on February 12, 1909, a similar request was made by the trustees of Purdue University. These requests having been approved by an act of the legislature of Indiana signed by Governor Marshall on February 13, 1909, a certified copy of which, signed by the Lieutenant-Governor and by the Secretary of the Senate, was duly transmitted, Indiana University and Purdue University, with the exception of the agricultural department of the latter institution, were on June 9, 1910, invited to share in the retiring allowance system of the Carnegie Foundation.

Wesleyan University

Wesleyan University is one of the strong New England colleges. It is contentedly a college, not a university, despite its corporate name. Indeed, it is a misfortune alike to education in general and to the institution itself that it still bears the name university, assumed in earlier days in the expectation that a university would one day grow out of it. This practice seems to have been characteristic of Methodist college building. A line of Methodist institutions stretches across the continent bearing the name university which are in reality colleges. In this matter an excellent example of educational sincerity, and one well worthy of imitation by other

colleges, has been set by Lawrence College of Appleton, Wisconsin, a Methodist college. This institution, realizing that its real work, just as that of Wesleyan University, was the work of a college and not of a university, took the necessary legal action to change its name from Lawrence University to Lawrence College.

Wesleyan University is distinctively, by history and sympathetic relationship, Methodist, and its admission to the Foundation involved the consideration of a denominational situation somewhat different from that under which institutions have hitherto been accepted. A frank statement of the reasons for the action of the executive committee and its consideration of these questions seems appropriate.

The original charter of Wesleyan University, granted in 1831, was a liberal one, and was intended to secure the college against the use of sectarian tests, as is evident from the provision which that charter contains, "that no by-laws or ordinances shall be established by said corporation which shall make the religious tenets of any person a condition of admission to any privilege in said university; and that no president, professor, or other officer shall be made ineligible for, or by reason of any religious tenets that he may profess, nor be compelled by any by-laws or otherwise to subscribe to any religious test whatever."

In the year 1870, however, under the sentiment general at that time that a college must be under control of some denomination in order to insure students and support, the charter was changed in such manner as to require that not only a majority of the trustees, but also a majority of the faculty of the college be members of the Methodist Episcopal Church. This was the situation when the Carnegie Foundation was established, and the petition of Wesleyan for admission to the Foundation was necessarily refused on this account.

In 1907 the college charter was again amended, returning to the spirit and almost to the phraseology of the original charter. Not only were the denominational tests in the choice of trustees and faculty dropped, but the following unequivocal declaration was inserted: "No denominational test shall be imposed in the choice of trustees, officers, or teachers, or in the admission of students." Notwithstanding this definite provision as to denominational tests, the charter as revised retained the provision that thirteen of the fifty-five members of the board of trustees might be elected by various designated conferences of the Methodist Church; but it was provided also that the number of such conference trustees must never exceed one-fourth of the entire board.

After making these changes, the authorities of the college again applied for admission to the Foundation. There followed a long correspondence and a number of conferences between the trustees and officers of the college and the representatives of the Foundation. It seemed to the executive committee of the Foundation that there was a discrepancy between that part of the charter which prohibited the choice of trustees upon a denominational basis and that part which intrusted the election of one-fourth of the trustees to designated denominational bodies. In reply

to this objection, the trustees and officers of Wesleyan urged that the specific declaration in their charter was a sufficient guaranty, in the hands of an honest and high-minded board of trustees, that the institution would be administered upon undenominational lines. They urged that the charter of the Foundation provided simply that institutions requiring a majority of the trustees to belong to a specified denomination should be excluded, and they argued that for the executive committee to exclude an institution on the ground that a small minority of the trustees is named by a denominational body, was to extend unduly the restrictions imposed by the charter.

The question in the minds of the executive committee was how much does a provision for undenominational government, such as that contained in the new charter of Wesleyan, mean in the case of an institution whose trustees are chosen largely from a specified denominational body, whose president is always selected from among the ranks of Methodist ministers, and whose relationship with the Methodist Episcopal Church had been so close as has been the case with Wesleyan University?

The executive committee was unable to answer this question satisfactorily. It finally decided that the question was really one for the Wesleyan trustees to answer. The committee felt that in case of a college educationally of high type, whose actual administration was unsectarian in character, its trustees having pledged themselves in their charter to an undenominational administration of the college would, as high-minded men, unquestionably carry out their announced purpose in a sincere and straightforward spirit. The committee on its part desired to administer its trust in a liberal spirit, and it therefore accepted the application of Wesleyan University on the ground that, notwithstanding the fact that a small minority of its trustees are named by Methodist Episcopal conferences, the trustees are nevertheless pledged in their charter to an undenominational administration. Therefore, on May 5, 1910, the executive committee voted to admit Wesleyan University to the privileges of the Foundation.

In the following paragraphs is given a statement of the history, of the educational standards, and of the government of the college.

Wesleyan University was the first successful effort of the Methodist Episcopal Church in the direction of higher education. In May, 1830, the New York and New England Conferences agreed between them to raise $40,000 in order to endow a college upon the lands and buildings of a former academy at Middletown, Connecticut. The academy had been founded in 1825 by Captain Alden Partridge, U. S. A., the first superintendent of the Military Academy at West Point. Citizens of Middletown contributed $18,000 of the amount raised to start the new institution, which was designated as a university in accordance with the custom of the Methodist Episcopal Church in establishing institutions of higher learning. Wesleyan University has, however, always remained a college.

The college was hampered during the earlier period of its history by its slow

financial growth. In 1876 this financial condition had become alarming. The increase of the endowment had not kept pace with the numerous additions to the college in the form of buildings, collections, and other material facilities, the total income-producing funds being only $141,000, while the annual expenditure was $46,000. A debt of $60,000 had also gradually accumulated. This was a critical period in the life of the institution. But in the years immediately following, through the efforts of President Cyrus D. Foss, assisted by several large gifts from Methodist laymen in New York and vicinity, the debt was paid and the endowment fund raised to an amount sufficient to give the college financial stability. In the present year the endowment of Wesleyan University amounts to $1,732,000, and its total net annual income is $115,000.

At the first establishment of the institution the proficiency of a student was made the only basis of classification, and any student able to pass the requisite examinations received his diploma without regard to the time he had spent in college. This plan, however, was soon abandoned, and the usual college class system was introduced. In 1872 women were admitted to Wesleyan; but in 1900 the trustees limited this privilege so that the women students should not exceed twenty per cent of the total number of students in the year preceding; in 1909 it was enacted that no women students should be admitted after that year. The trustees have voted to establish a coördinate college for women as soon as sufficient funds are available. In the year 1909–10 the college contained three hundred and forty students, nine of whom were pursuing graduate studies.

Educational Standard. The stated requirements for admission to the college amount to 14.5 units, students being admitted both by examination and by certificate. In February, 1910, the Foundation made an examination of the entrance statistics of the college. This examination showed that the records of one hundred and seventeen students admitted during the present academic year were as follows:

Forty-one students entered clear of conditions;
Fifty-three students entered conditioned in from .5 to 3 units;
Twenty-two students entered conditioned in 3 or more units;
One special student.

As in the case of many New England colleges, the articulation with the high schools is imperfect and in some instances confused. Although the college is a member of the New England College Entrance Certificate Board, and although the administration of the college seeks to admit students only on secure grounds, the personal equation which is permitted to enter into practically all questions of student admission results in some lax practice. For example, a small group of certificates showed that credits in history or in the languages were interpreted with excessive liberality. In thirty-two cases the original high school records of students were not on file. Some of these had been returned to the students who presented them and some were assumed to be in the hands of professors who were called upon to pass upon

the merits of one subject or another. Frequently the certificates which were on file did not show whether or not the students were graduates of the schools.

GOVERNMENT. In the original charter of Wesleyan University, granted by the state of Connecticut in 1831, one-half of the governing board of the institution was to be elected by the New York Conference, the New England Conference, and the New Hampshire and Vermont Conference of the Methodist Episcopal Church. In 1870 the university obtained a new charter, which gave to the Methodist conferences which were the successors of the three designated in 1831 thirteen representatives in a board of forty members, with as many more representatives as the board itself should think fit to add. This charter also changed the fundamental law of the university in the following important particular: "*Provided* that at all times the majority of the trustees, the president and a majority of the faculty shall be members of the Methodist Episcopal Church."

This provision remained the law of the college until 1907, although several changes were in the meantime made in the composition of the board of trustees. In 1907 a new charter was secured from the legislature of Connecticut. This charter fixes the size of the board of trustees at not more than fifty-five, including the president *ex officio*. Of this number the alumni elect ten, the thirteen patronizing conferences of the Methodist Episcopal Church one each, and the board itself the remainder. It is provided, however, that the trustees elected by the conferences shall never be more than one-fourth of the entire membership of the board, and in contradistinction to the restrictions contained in the charter of 1870, there is the declaration that "no denominational test shall be imposed in the choice of trustees, officers, or teachers, or in the admission of students." The changes in this college charter during the eighty years of its existence form an interesting commentary on the fluctuations of public opinion in the United States with respect to denominational control of higher education.

It is an interesting feature of the changes made from time to time in this charter that no attention seems to have been given to the determination of what constitutes an efficient working board of trustees. It would be difficult to devise a more cumbersome board than that which is now provided in the charter of Wesleyan University. A board of fifty-five members, thirteen of whom are representatives of distant conferences, is a most unwieldy body. It is to be regretted that when the last change in the charter was made, the question of an efficient working board of trustees did not receive a more careful consideration; and it would seem to be necessary still for the college to secure by some means a smaller and more directly responsible governing board than that which it now has.

LIST OF ACCEPTED INSTITUTIONS

Amherst College
Amherst, Massachusetts

Bates College
Lewiston, Maine

Beloit College
Beloit, Wisconsin

Bowdoin College
Brunswick, Maine

University of California
Berkeley, California

Carleton College
Northfield, Minnesota

Case School of Applied Science
Cleveland, Ohio

Central University of Kentucky
Danville, Kentucky

University of Cincinnati
Cincinnati, Ohio

Clark University
Worcester, Massachusetts

Thomas S. Clarkson Memorial School of Technology
Potsdam, New York

Coe College
Cedar Rapids, Iowa

Colorado College
Colorado Springs, Colorado

Columbia University
New York, New York

Cornell University
Ithaca, New York

Dalhousie College and University
Halifax, Nova Scotia

Dartmouth College
Hanover, New Hampshire

Dickinson College
Carlisle, Pennsylvania

Drake University
Des Moines, Iowa

Drury College
Springfield, Missouri

Franklin College of Indiana
Franklin, Indiana

Grinnell College
Grinnell, Iowa

Hamilton College
Clinton, New York

Harvard University
Cambridge, Massachusetts

Hobart College
Geneva, New York

Indiana University
Bloomington, Indiana

Johns Hopkins University
Baltimore, Maryland

Knox College
Galesburg, Illinois

Lawrence College
Appleton, Wisconsin

Lehigh University
South Bethlehem, Pennsylvania

Leland Stanford Junior University
Stanford University, California

McGill University
Montreal, Quebec

Marietta College
Marietta, Ohio

Massachusetts Institute of Technology
Boston, Massachusetts

University of Michigan
Ann Arbor, Michigan

Middlebury College
Middlebury, Vermont

University of Minnesota
Minneapolis, Minnesota

University of Missouri
Columbia, Missouri

Mount Holyoke College
South Hadley, Massachusetts

New York University
New York, New York

Oberlin College
Oberlin, Ohio

University of Pennsylvania
Philadelphia, Pennsylvania

University of Pittsburgh
Pittsburgh, Pennsylvania

Polytechnic Institute of Brooklyn
Brooklyn, New York

Princeton University
Princeton, New Jersey

Purdue University
Lafayette, Indiana

Radcliffe College
Cambridge, Massachusetts

Ripon College
Ripon, Wisconsin

University of Rochester
Rochester, New York

Rose Polytechnic Institute
Terre Haute, Indiana

Smith College
Northampton, Massachusetts

Stevens Institute of Technology
Hoboken, New Jersey

Swarthmore College
Swarthmore, Pennsylvania

University of Toronto
Toronto, Ontario

Trinity College
Hartford, Connecticut

Tufts College
Tufts College, Massachusetts

Tulane University of Louisiana
New Orleans, Louisiana

Union University
Schenectady, New York

Vassar College
Poughkeepsie, New York

University of Vermont
Burlington, Vermont

Wabash College
Crawfordsville, Indiana

Washington and Jefferson College
Washington, Pennsylvania

Washington University
St. Louis, Missouri

Wellesley College
Wellesley, Massachusetts

Wells College
Aurora, New York

Wesleyan University
Middletown, Connecticut

Western Reserve University
Cleveland, Ohio

Williams College
Williamstown, Massachusetts

University of Wisconsin
Madison, Wisconsin

Worcester Polytechnic Institute
Worcester, Massachusetts

Yale University
New Haven, Connecticut

THE ESTABLISHMENT OF RETIRING ALLOWANCE SYSTEMS BY HAVERFORD COLLEGE AND BROWN UNIVERSITY

In every report issued by the Carnegie Foundation, the effort has been made to call the attention of colleges and universities to the fact that the endowment in the hands of its trustees would provide at most an adequate retiring allowance system for only a small minority of the institutions in the United States and Canada bearing the name college or university. This was most strongly urged even in the First Annual Report. It has been repeated in each subsequent report and in personal conferences with the representatives of colleges and universities. The question of the establishment of retiring allowance systems by the colleges themselves has been fre-

quently discussed, particularly in cases where institutions contemplated a change of charter to make themselves eligible to admission to the Carnegie Foundation. The officers of the Foundation have continually called the attention of these institutions to the fact that a retiring allowance system is within reach of any well-supported college or university whenever the authorities of such an institution decide that retiring allowances are as important as laboratories and libraries and buildings. All that the Foundation has hoped to do in this matter with its endowment has been to establish an allowance system in a sufficient number of institutions so firmly that the principle would be accepted as a part of the American system of education, and that the American teacher in other institutions might thus receive the security of a retiring allowance provided by his college.

In the case of Haverford College a provision of the board of trustees requires that the members of that body shall be selected from the Society of Friends. To drop this provision required no change in the charter, but merely a vote of the board of trustees. The trustees decided, however, that under existing circumstances the college preferred to establish its own retiring allowance system. They therefore consulted a competent actuary, and have provided a sum of money whose income will be sufficient to furnish to the teachers in Haverford College retiring allowances upon the basis adopted in the Carnegie Foundation.

The charter of Brown University, which at the time of its granting in 1764 was a monument of educational freedom, creates a bicameral system of government, consisting of a board of fellows and a board of trustees. Of the former board it is enacted that:

> "The number of fellows, inclusive of the president, who shall always be a fellow, shall and may be twelve, of which eight shall be forever elected of the denomination called Baptists, or Antipaedobaptists, and the rest indifferently of any or all denominations."

It is elsewhere also provided that the president "shall forever be of the denomination called Baptist, or Antipaedobaptist."

The board of trustees is constituted as follows:

> "The number of trustees shall and may be thirty-six; of which twenty-two shall forever be elected of the denomination called Baptists, or Antipaedobaptists; five shall forever be elected of the denomination called Friends, or Quakers; four shall forever be elected of the denomination called Congregationalists, and five shall forever be elected of the denomination called Episcopalians: and that the succession in this branch shall be forever chosen and filled up from the respective denominations in this proportion, and according to these numbers; which are hereby fixed, and shall remain to perpetuity immutably the same."

During recent years these conditions have become more and more difficult to meet.

The trustees, for example, have regarded five places in the board of trustees as belonging to the Friends. In filling these places, however, it has been impracticable to follow the strict provision. The language of the charter has therefore not been construed strictly, a son of a Friend, for example, being considered to have the qualifications necessary for trusteeship. The whole situation has become more and more unsatisfactory as time has gone on.

A committee of the trustees and fellows, appointed to consider the whole question of charter revision, made its report last summer. This committee recognized clearly the desirability of dropping all of these denominational restrictions as being inconsistent with the spirit of educational freedom, and difficult, if not impossible, to administer longer in strict conformity with the directions of the charter. On the other hand, the committee, one of whose members was Mr. Justice Hughes of the Supreme Court of the United States, at that time Governor of New York, expresses grave doubt of the possibility of charter revision on legal grounds. Without waiting for judicial construction which may be far distant, the authorities of Brown University propose to go forward under their present charter, administering it in a liberal and progressive spirit; and the university proposes at the same time to enlarge the present pension system of the university and place it upon a secure financial basis.

The action of these two institutions is most creditable to those who govern and administer them. Throughout their history, Haverford and Brown have stood as firmly as any American colleges for intellectual sincerity as well as for religious growth. In taking steps to provide through their own efforts for their teachers the security which can be gained only by a retiring allowance system, they have entered upon a policy at once dignified and consistent with scholarly ideals. They have, in addition to this, furnished an example to other American colleges which ought quickly to be followed. It will be a real loss to college leadership if the friends of Brown University fail at this time to provide in a generous way the necessary funds. To such a college as Brown, the security of its teachers means more than buildings and laboratories; and in asking its friends for a reasonable endowment for a retiring allowance system it ought to meet the heartiest response.

THE ADMINISTRATION OF THE RULES FOR RETIREMENT

My last annual report contained a detailed statement as to the workings of the rules for retirement during the past five years. In view of that experience, I recommended to the trustees two changes: first, the extension of the rules in such manner as to recognize years of service of an instructor; secondly, the amendment of Rule 2 in such manner as to grant retiring allowances in advance of the age of sixty-five only in the case of disability. Both of these recommendations were adopted by the trustees at their last annual meeting, and have, therefore, been in force for the better part of the year.

The experience of the year has confirmed in the judgment of the trustees the wisdom and essential justice of the action taken a year ago.

The experience of the past five years has made fairly clear the benefits which such a retiring allowance system can secure to the college teacher. These are practically the benefits now offered by the rules of the Foundation, namely, a fair retiring allowance for the teacher after he has done his work, a pension for his widow after his death, and a disability allowance in case of a breakdown from ill-health. These are the concrete and actual benefits which a system of retiring allowances can secure; and the rules seem now, so far as one can judge from past experience, so framed as to serve efficiently these ends.

The inquiry has been made by several of the accepted colleges as to whether a plan can be arranged under which a teacher who desires to retire before coming to his sixty-fifth year may, with the concurrence of his college, retire, the retiring allowance being paid by the college until he comes to his sixty-fifth year, being then assumed by the Foundation. I can see no objection to this arrangement. It would seem in fact to provide just that elasticity which is desirable in order to provide for the occasional teacher who is not eligible for retirement on the score either of disability or of age. At the same time such a provision places a sufficient obligation upon the college to guarantee fair and thoughtful action without burdening it with a permanent obligation. I recommend the acceptance of this suggestion.[1]

THE EXCHANGE OF TEACHERS BETWEEN PRUSSIA AND THE UNITED STATES

The exchange of teachers between Prussia and the United States has operated under the same arrangement as in previous years. In the first year of the exchange the number of American teachers applying for positions in Prussia was large, while there were but few American schools that signified their desire to accept a Prussian teacher. In the last annual report I called attention to this fact and suggested that American schools did not appreciate the advantages to be derived from the presence in their

[1] The trustees at the annual meeting in November, 1910, adopted the following:

Rule 4. In addition to the provisions for retiring allowances made in Rules 1 and 2, the Foundation will coöperate with institutions on the accepted list in the retirement of teachers who have had twenty-five years of service as professor, or thirty years of service as professor and instructor, but who, not being sixty-five years of age, are not eligible for retirement under Rule 1, upon the following basis:

If the institution grants to such a teacher a retiring allowance at its own cost, the Foundation will consider such teacher eligible to a retiring allowance on reaching the age of sixty-five under the rules in force at that time, and at the same rate which the institution has paid in the interval, provided the retiring allowance so paid shall not be less than that to which the teacher would be entitled if he retired under Rule 2 on the ground of disability, and provided further that under no circumstances will the Foundation pay a higher retiring allowance to such a teacher than that to which he would have been entitled had he remained in service until the age of sixty-five and retired under Rule 1. Should a teacher so retired by an institution die before reaching the age of sixty-five, his widow would be eligible under the rules to receive a pension from the Foundation equal to one-half of that which her husband had been receiving, provided that under no circumstances would such widow be entitled to a higher allowance than that which she would have received had her husband been retired under Rule 1 or Rule 2.

faculties of scholarly German teachers trained in the best ideals of the Prussian school system. Last year more schools applied for exchange teachers than the Prussian ministry could supply. On the other hand, the supply of American candidates for the exchange teachership, which in the first year of operation was large, this year fell off to such a degree that it was difficult to recommend for appointment a sufficient number of well-equipped teachers. The privilege of spending a year in Germany as an integral part of the Prussian system of national education is so great that, notwithstanding the small stipend annexed, it is to be hoped that the decrease of candidates is only temporary.

For the academic year 1910–11 the following American teachers have been assigned to Prussian schools:

Name	*Institution from which he comes*	*Subjects in which he is a teacher*	*Gymnasium in Prussia*
John W. Perkins	University School, Duluth, Minnesota	*German and French*	Realgymnasium, Potsdam
Milo A. Gibson	High School, Burlington, Vermont	*German and Mathematics*	Königliches Gymnasium, Kiel
Roy Temple House	Southwestern State Normal School, Weatherford, Oklahoma	*Modern Languages*	Oberrealschule, Magdeburg
Silas Paul Jones	High School, Arapaho, Oklahoma	*German and Latin*	Klinger-Oberrealschule, Frankfurt a. M.
John Palmer Darnall [1]	Centre College Academy, Danville, Kentucky	*English and History*	Königstädtisches Realgymnasium, Berlin
George Franklin Cole	High Schools, Worcester, Massachusetts	*French and German*	Oberrealschule, Potsdam
Robert Bright Walsh	Hastings College, Hastings, Nebraska	*Modern Languages*	Oberrealschule, Saarbrücken
G. E. Edwards	Bible College of Missouri, Columbia, Missouri	*Biblical Literature*	Oberrealschule, Charlottenburg

The Prussian teachers, with their assignment in the United States, are as follows:

Name	*Gymnasium from which he comes*	*Subjects in which he is a teacher*	*Assignment in this country*
Max Kullnick	Berlin	*English, French, and German*	The Hill School, Pottstown, Pennsylvania
Karl Richter	Wilhelmshaven	*French, English, and History*	Phillips Academy, Andover, Massachusetts
Karl Lütge	Lüneburg	*Geography, French, and English*	Phillips Exeter Academy, Exeter, New Hampshire
Heinrich Starcke	Kottbus	*Physics and Mathematics, Botany and Zoölogy*	Pennsylvania State College, State College, Pennsylvania
Robert Oehme	Berlin	*English, French, and German*	Worcester Academy, Worcester, Massachusetts

[1] Reappointed.

Name	*Gymnasium from which he comes*	*Subjects in which he is a teacher*	*Assignment in this country*
GEORG KARTZKE	Charlottenburg	*English, French, and German*	Horace Mann School, New York City
MAX HOSSFELD	Berlin	*French, English, and History*	Mackenzie School, Dobbs Ferry-on-Hudson, New York
EDMUND VENZLAFF	Berlin	*Religion, French, and English*	Boston High Schools, Boston, Massachusetts
PAUL ZIERTMANN	Steglitz b. Berlin	*English, French, History, and German*	Yale University, New Haven, Connecticut
WILHELM STEITZ	Frankfurt a. M.		University High School, University of Chicago, Chicago, Illinois
ARTHUR GUNDTLACH	Jüterbog	*German, English, Pedagogy, and Religion*	Worcester Public Schools, Worcester, Massachusetts

Each exchange teacher is requested by the authority which selects him to make a report giving his experience in the foreign school, and his observations concerning the school system of the country to which he is sent. In the Fourth Annual Report were presented extracts from the reports concerning the Prussian schools made to the President of the Foundation by the American exchange teachers. Through the courtesy of Geheimrat Dr. Karl Reinhardt I have received copies of the reports made to him by the Prussian exchange teachers sent to the United States. These reports deal primarily with the organization of the schools visited and with the routine duties of the visiting teacher, information naturally of more interest to the German than to the American reader. The report of Dr. Friedrich Abee, who spent the year at the Horace Mann School, is so full of suggestions touching upon the aim and efficiency of American schools compared with the schools of his own country that I venture to quote at length from it. It is interesting to note the close agreement of his criticisms concerning superficiality in our schools with the criticisms of the Oxford tutors given on pages 56–62. The following paragraphs are from Dr. Abee's report.

"The text-book plays a decidedly more important part in American instruction than in ours; the instructor steps more into the background, and the work assigned to be done at home, as well as the written work prepared in the school, occupies a larger proportion of the field of instruction. In general more is expected of the pupil's own work; it is explained to him at an early stage that he must help himself in life and can advance himself only through his own efforts. Independent study and reading, therefore, are expected of him to a large extent. For this reason in America a great deal more preparation at home is required. In this connection, of course, it must be taken into consideration that the American boy has more time to himself.

"The method of treating the material (in history) struck me as differing from ours in two particulars, namely, the prevalence of note-book work and the strong demand for reference reading. . . . The object of this procedure is to accustom the pupil to independent investigation and comprehension of historical

data, and to train him to draw his own conclusions from certain events by studying descriptions of them which had been written from various points of view.

"This conception of the value of reading is in entire accord with the American principle of self-help and self-instruction; only individual reading can make possible independent judgment and desirable mastery of the language. The fact that each pupil must be ready every day to say what he thinks of what he has read, results, in my judgment, in the American boy having a better flow of language than the German. On the other hand, the lack of reading aloud does harm to elocution in America.

"In the instruction in manual training the children have practically to live through the various stages of civilization. . . . Thus in the elementary school the scholars are started in manual training by reproducing the simplest utensils of primitive life, until in the higher grades they learn to make useful articles which have been invented in our own time.

"According to the American conception of the school as a place of training for real life, the instruction deals particularly with such matters as call for the child's initiative and powers of observation. The object of all schooling in America is, in a more pronounced manner than with us, a direct preparation for practical life and its demands. The system of examinations and certificates with which we are familiar has not yet made its appearance. The ability to do is sought rather than knowledge. For this reason, particularly in the lower grades, subjects like drawing, handwork, manual training, and art, which aim at increased manual dexterity, step into special prominence. Furthermore, the training is made as many-sided as possible in order to waken and foster the various latent energies of the child and to send him into the world a well-rounded man. The character of the American school consequently seems to me to have more sides to it and to be more mobile than ours. For this reason the instruction is broader than it is deep. To this method, however, there is a weak side. At every step are to be seen a want of thoroughness and methodical procedure, a lack of system, and the neglect of important elementary principles. That German thoroughness, which of course is sometimes a little tedious, but which is nevertheless praised highly in America, is for the most part sought in vain.

"It seems to me, however, that in the American schools the proper use is not made of this valuable liberty of choice. In the first place, too much freedom is given the pupils, and at too early an age, in the selection of their subjects. They can at any time, if they wish, make changes in their courses, so that they never pass the experimental stage and consequently lose a large amount of time. Furthermore, the general foundation laid in the elementary school offers no satisfactory mental training on which so liberal a system can at once be built.

"The common education of the sexes and the elective system, aside from different aims and problems, form the chief difference from the German secondary schools. The practical side for financial reasons has been the chief cause of the great enthusiasm of Americans for this experiment.

"It would be expected that the foreign visitor to American schools would find the reverse of discipline and order. So general a conclusion, however, is in my opinion not justified. In fact, I was repeatedly surprised that the passing of the pupils from one room to another at the end of each period was accomplished in so smooth, orderly, and noiseless a manner. The thousand

children—and in larger institutions visited by me the two or three thousand children—went quietly and for the most part unaccompanied by teachers to their new classrooms; generally a definite route was prescribed for the different classes,—one division took the right side of the stairs, another the left, and a third the middle, while others, especially the smaller pupils, made use of the elevators. In the handling of masses the Americans are masters, as can be seen at any time in large gatherings. The internal class discipline, by which I mean the deportment of the pupils during the period of instruction, leaves, from the German point of view, something to be desired. America is no military country and knows no military discipline. Anything of the sort runs counter to the disposition of the entire nation. The idea of free personal development is too prevalent not to play a part in instruction also. I never noticed disobedience or refractoriness, but indolent and careless attitudes and a disposition to all kinds of mischief and chattering. To this sort of thing, the teacher, with few exceptions, remains indifferent and indeed is often helpless."

It is to be remembered that this report refers to the very best examples of secondary schools which the United States has to offer. Even in such schools the régime, while lending itself to the encouragement of initiative, lacks in the eyes of a well-trained Prussian teacher thoroughness of training and discipline of mind and character.

PUBLICATIONS OF THE FOUNDATION

During the past year the following publications have been issued by the Foundation:

1. Fourth Annual Report of the President and of the Treasurer, *201 pages.*
2. Standard Forms for Financial Reports of Colleges, Universities, and Technical Schools, Bulletin Number Three, *37 pages.*
3. Medical Education in the United States and Canada, Bulletin Number Four, *346 pages.*

In anticipation of a larger demand for Bulletin Number Four than usually exists for the publications of the Foundation, the executive committee took under consideration the advisability of making for it a moderate charge. The benefit, however, to be derived from a wide circulation of this bulletin among physicians, educators, and public officials was believed by the committee to be so great that it determined to distribute the report during the remainder of the fiscal year upon payment of postage. About 15,000 copies have been distributed at this date.

For the sake of completeness, a list of the publications of the Foundation to date is given below:

First Annual Report of the President and Treasurer, 1906, *84 pages.*

Papers Relating to the Admission of State Institutions to the System of Retiring Allowances of the Carnegie Foundation, Bulletin Number One, 1907, *45 pages.*

Second Annual Report of the President and Treasurer, 1907, *124 pages.*

The Financial Status of the Professor in America and in Germany, Bulletin Number Two, 1908, *101 pages.*

A Plan for an Exchange of Teachers between Prussia and the United States, 1908, *7 pages.*

Third Annual Report of the President and Treasurer, 1908, *211 pages.*

Fourth Annual Report of the President and of the Treasurer, 1909, *201 pages.*

Standard Forms for Financial Reports of Colleges, Universities, and Technical Schools, Bulletin Number Three, 1910, *37 pages.*

Medical Education in the United States and Canada, Bulletin Number Four, 1910, *346 pages.*

It needs to be added that the editions of the First and Second Annual Reports and of Bulletins Number One and Two are exhausted, and these publications can no longer be supplied. The publications of the Foundation have been distributed widely to officers and professors of colleges and universities; and they can be consulted in most public libraries as well as in the libraries of the colleges and universities.

THE COLLEGE AND UNIVERSITY IN RELATION TO MEDICAL EDUCATION

The Report on Medical Education in the United States and Canada, Bulletin Number Four, marks the beginning of an endeavor on the part of the Foundation to deal comprehensively with professional education. The report undertook, on the one hand, to trace the development of medical education in North America, and to present a complete and accurate inventory of its present resources, facilities, and methods; on the other hand, with this detailed study of existing facts, it contrasted a picture of what medical education to-day might reasonably and feasibly aim to be. This included the facilities medical education should possess, how they should be used, in what relation the medical school should stand in respect to secondary schools and colleges, and in what numbers the country requires that physicians be now trained. The leading medical teachers and practitioners concur in indorsing the point of view from which the subject has been presented. In the process of preparing the report, these leaders of medical thought in various parts of the country were consulted constantly; so that it may fairly be held that the result is a practicable program which will assist public and academic authorities in dealing with the problems with which actual or contemplated medical departments bring them face to face.

Inevitably, the action of the Foundation in this matter has given rise to criticism. It was impossible to print the truth respecting all of our one hundred and fifty medi-

cal schools without damaging some of them; it was impossible to maintain the standpoint of the report without undermining the very basis upon which many of the schools rested. It is, however, significant that to the facts themselves as stated little definite objection has been made. Moreover, a considerable majority of the schools have approved the report, even where it dealt severely with themselves. In many cases, approbation has taken a substantial form: faculties have been strengthened, consolidations arranged, schools suspended, and funds raised for the purpose of improved facilities. The most thoughtful men of the medical profession have for years been working for the betterment of medical schools and a reduction of their number. To these forces the action of the Foundation is only an opportune addition. It has simply expressed and disseminated what enlightened medical educators have been patiently working to bring about.

The task of rehabilitation, however, promises to be arduous. In the first place, the commercial medical school must be conquered; its strength is a combination of the strength of ignorance and of self-interest, speciously concealed beneath the claim that such an enterprise affords as good an education as the times and the circumstances of the region allow, and that it keeps the medical profession a "democracy," instead of allowing it to become a "trust," an "oligarchy," or an "aristocracy." Meanwhile the public surely can be educated to realize that the self-interest of these medical proprietors is directly opposed to the true interests of the people at large. The education of the American people in this matter has just begun, and it will require time and patience to make clear the interests of the medical profession and of the public, and to show that the interests of both are conserved by such public requirements as restrict the number of incompetent men allowed to enter the profession and raise the quality of training among those permitted to enter. The public is slow to understand that under present conditions few patients receive the best medical treatment which the science of the day offers, treatment just as feasible of application in the small hamlet as in the large city. Still less fully does the public realize that many interests are at work to keep the door to this great profession open to the incompetent and the unfit. A great work of public education is waiting to be done in this matter.

Commercialism, however, is not the only form under which incompetent schools are found; for colleges and universities not infrequently shelter medical departments whose atmosphere is neither professional nor scientific in the appropriate use of these terms. Some of these schools are situated in inaccessible places; they lack the means to modernize their instruction; and it would be of no true advantage either to them or to the public even if their present financial resources were somewhat increased. And in a profession so vital in our every-day life as that of medicine, it is no argument in favor of inadequate present conditions that a school has a long history and in former generations kept abreast with the science of that time.

I take this opportunity, therefore, again to reinforce the words of the report

with an additional appeal to the colleges to face their own responsibility in this matter, and to throw their influence positively on the side of the leaders of the medical profession in their effort to place their profession securely on the proper basis. Every claim of civilization and every interest of the public demand such action on the part of the colleges.

But this attitude, although indispensable, is not easy. The college president who has inherited a medical faculty which gave his predecessors no trouble either financially or educationally, now finds himself called upon either to raise a large sum every year in order to conduct a modern medical school, or to break the academic traditions by taking his institution out of the field of medical education. The former alternative is generally impossible, and the latter difficult to pride and apparent self-interest; it is attractive, however, when compared with the continued maintenance of so important a department at a level below the standard of the age. And the evil can only become worse with time, for such a school will sink lower and lower as the conditions of medical training become more exacting.

Nor should college authorities delude themselves with the belief that there is any middle path. The employment of a few overworked, although full time, instructors in anatomy, physiology, and pathology, or the opening of several college laboratories, is only a patching of the weak places. These improvements will no more change a routine school into a modern medical school than the atmosphere and spirit of a school operated for years as a proprietary institution are transformed by a mere alliance with a university, or the fact of legal incorporation into it. The entire method of teaching must be remodeled from the foundation upward, and the operation of such remodeled instruction will call for the expenditure every year from the college treasury of a very large sum of money above all receipts. Nor is it simply a question of money. Adequate facilities are indispensable, as is also the assurance of continued support; but the central factor is one of ideals.

The medical practitioner of these opening years of the twentieth century should be an educated man, his conscience sensitive to the social importance of general physical well-being, his intelligence quick to follow the progress of medical investigation. Such mind and character grow up naturally amid the stimulating influence that universities and institutions of research produce. The atmosphere which the medical student breathes in the routine school, whether connected with a college or not, will develop a totally different type of medical practitioner. This type a good college cannot afford at the present day to send forth with its approval.

The medical profession is making a noble effort to place medical education upon the right basis. In this struggle it has necessarily to contend with lack of knowledge by the public of its own interests and with the opposition of the commercial medical practitioners. But it ought not to be necessary for the leaders of the medical profession to encounter the inertia or the opposition of the colleges also, in their fight for right standards. Hitherto, the alliance between a college and a com-

mercial medical school has been tolerated as a passing stage in our educational evolution. That day has now gone by; and the colleges owe it to the medical profession, to the public, and above all to themselves, as representatives of sincere devotion to truth, to face their responsibilities in this matter. They have no longer any excuse for offering the routine medical education current during the past twenty years, and it is no humiliation for any college to abandon part of the work which it has hitherto carried on when changed conditions render it impossible to continue that work honestly within the financial limitations by which the college is bounded. The honest college should either offer a medical education consistent with the standards of our day, or else should retire frankly from the field.

PART II
THE RELATIONS OF COLLEGES AND SECONDARY SCHOOLS

INTRODUCTORY STATEMENT

NEITHER colleges nor secondary schools are satisfied with their present relations to each other. These relations are not all of one type; but despite the varied ways in which the two stages of education have endeavored to connect with each other, rarely as yet has smooth and satisfactory transit been procured.

The process by which this situation came about in the United States is evident. The colleges originally, and until within the last sixty years, required for admission only a knowledge of elementary English, elementary Latin and Greek, and arithmetic. These studies the candidate pursued generally under the guidance of a tutor, and he was received into the college upon the recommendation of his teacher.

Some six decades ago, under the inspiration of the rising ambitions of the American people, the high school arose as a part of our educational system. It was originally designated as the "people's college." Here, it was assumed, the great mass of those who did not wish to go to college would obtain something beyond the rudiments of a general education. There was no thought of articulation between the college and the high school.

Pressure forcing a complete change of this situation came with the enormous outburst of educational interest which followed the Civil War. Before that period, education in New England and the other eastern states had been a notable part of the life of the people. But on the heels of the Civil War the American people as a whole, particularly in the states of the central west, turned to education with a veritable passion; and the high school was rapidly developed in many states in the Union as an essential part of the general educational system.

During the fifty years which have since elapsed the situation has in one respect become clarified, in another respect become more confused. It is now evident that the college must rely upon the secondary school for the preparation of its students; and this means mainly the public high school. No college officer would deny that as matters now stand the college is no longer an independent institution in the sense in which, more or less isolated, it went its way half a century ago, relying on tutors and private academies for its student body. The steady rise in the proportion of college students who enter through the public high schools bears only one interpretation: that, however their relationship may be conceived, college and high school are now to be viewed as supplementary to each other. On the other hand, this fact is equally significant to the high school; precisely because an increasing proportion of high school graduates enter these institutions of higher and of special learning, the high school is no longer merely the terminus indicated by its designation as the "people's college." It, too, is included in a scheme which reaches beyond itself.

Meanwhile, college entrance standards have been remarkably vague and various. For many years the colleges made no effort at all to define their relation to a completed high school course. Even to-day, except in the case of the state universities,

few institutions look upon the articulation of high school and college as being in any important measure the duty of the college. On the contrary, the colleges have in many cases, while drawing their students largely from the public high schools, set their admission standards wholly out of relation to the curricula of the high schools; and owing to the prestige which they enjoy, they have been able to compel the secondary schools in their various regions to teach such subjects as they prefer and in such manner as they themselves direct. The secondary school, in closer contact with local and social interests, thus finds itself drawn by two forces which at times oppose each other. If it follows without deviation the college entrance scheme in the precise form in which the college formulates its wishes, the high school loses touch with the very needs out of which it sprang, and the heavy decrease in high school enrolment from class to class would appear to indicate that the high school is being restrained from meeting the desires of the community which pays for its support. On the other hand, if the high school should elect to respond decisively to local demands, the graduates could not enter higher institutions, or could do so only with difficulty. The high school would be quickly condemned for such procedure, and doubtless in the end be compelled to revert to the course laid down by the college.

It is not evident that the difficulty may be solved by offering one course of study for those who are to go to college and another course for those who are not to go to college, for these two classes of student are not defined in the high school. Many boys do not decide to continue their education at college until late in their high school course. The high school period is rightfully claimed as the time in which to form such resolves, based upon some estimate of intellectual ability. The high school is an agency for inspiration and not merely a drill-ground for college preparatory and non-college preparatory students.

It is with this situation that we are confronted to-day: a great number of colleges are scattered over the United States having no satisfactory relation to the secondary schools from which they draw their students, exacting entrance requirements with little regard to the secondary schools, and receiving in turn from the high schools pupils who are in the majority of cases ill-prepared for college work. The situation is unsatisfactory alike to the college and to the secondary school, and can be regarded only as a transitional stage in the development of our general educational system. Such a system can be created only through sympathetic coöperation between the two parties in interest,—for both alike are instruments forged for the education of our modern industrial democracy. By way of assisting coöperation, let us consider what each of the two parties has to say of the other. The Foundation enjoys a certain advantage in attempting such a statement; for in the course of its studies of colleges, it has been constantly thrown back upon the secondary schools. Out of this experience, and from the knowledge gained from conferences with college and secondary school teachers from the Atlantic to the Pacific, I venture to set

forth briefly the complaints which the colleges and the secondary schools each make concerning the work and the attitude of the other.

THE COMPLAINT OF THE COLLEGE AGAINST THE SECONDARY SCHOOL

THERE are two main counts in the indictment which the college teacher presents against the work of the secondary school. The first is embraced in the charge of superficial knowledge; the second relates to the unreadiness of the ordinary student to apply himself in a prolonged or concentrated way. The college teacher claims, in a word, that students coming from the high schools are superficially prepared in fundamental studies, and that, often in lieu of such necessary foundation, they have received in the high school a sort of imitation of college work which takes away the capacity for enjoyment of college studies; and that the high school student is, as a rule, unaccustomed to master with reasonable thoroughness even a definitely circumscribed task or topic.

It is not a question, for the time being, of what a nineteen-year-old boy ought to know; limiting ourselves to the things which he is explicitly declared to have studied, it is urged by the college that high school graduates constantly come up lacking a sure grasp of the elements of subjects which they have studied for years. A boy is certified as ready for examination in Cicero and Virgil, or as having already acquitted himself in them; yet his first college work in Latin may disclose a decidedly halting and defective knowledge of declensions and paradigms; careless elementary arithmetic and slovenly elementary algebra form the unstable basis beneath the more advanced mathematics and physics; more conspicuous still, it is stated, is the extraordinary inability of high school boys to write or speak correctly their native tongue. Not only is their range of vocabulary small, their command of expression meager, but they are unable to spell correctly. In consequence many students who come from the high school, bearing its diploma and recommendation, are not ready for college work even though the studies which they are to take up lead directly from those studies which they have pursued in the high school. In a word, the colleges indict high school work on the ground of superficiality. Its students, they say, have studied a number of subjects on the surface, but have mastered none; they urge further that these high school students, superficially trained as they are, have nevertheless in their own estimation studied many of the college subjects of the first year. When invited, for example, to enter a class in English, in literature, or in chemistry, the reply not infrequently is, "We have had that already in high school." This is a result, so the college teachers complain, of the effort of the secondary school to make itself a miniature college instead of keeping contentedly within the bounds best suited to it.

Superficiality has, however, other consequences; to it the college ascribes the dis-

inclination of the average boy to apply himself vigorously to tasks requiring more or less prolonged effort. Failure to master fundamentals impairs the student's interest in his work, just as it limits the amount he can accomplish without recourse to his teacher's guidance and stimulus. The high school boy can thus make only very short flights and in a very crippled fashion; the college charges that such is the case, and the failure of the high school to drill the boy thoroughly in fundamentals hampers his progress and his zeal ever after. The student's lack of power is thus a consequence of his lack of thoroughness.

Exceptions to this characterization are of course everywhere conceded; it is supposed to describe only the average boy. So far as he is concerned, however, the actual result of the average high school teaching is, as the college teacher sees it, to send a youth to college who is trained so superficially in the fundamentals of learning that he lacks both accuracy and the ability to think; yet he has covered thinly so much ground that the thirst for study has been in many cases dulled, if not destroyed. Rarely, they say, has scholarly enthusiasm been able to survive the secondary school, whether it be a public high school or a fitting school.

THE COMPLAINT OF THE SECONDARY SCHOOL AGAINST THE COLLEGE

If the complaint of the college against the secondary school is sharp, that of the secondary school against the college is bitter. Those who read the papers at the recent meeting of the National Education Association in Boston must have been struck by the heat and feeling which went into numerous complaints of secondary school teachers against the present day college teaching and existing college domination. One principal of a New York high school spoke as follows:

> "There is no spectacle in American life to-day more pitiful than the contrast between what the college advertises to do and what it performs. On one hand, it gives out well-written schemes of an almost universal education; on the other, it has helpless professors, unable and unwilling to enforce serious attention from their students, but serving as an excuse for congregating thousands of young men absorbed in puerile and trivial interests.
>
> "The college fails utterly in training these lads to intellectual ability. The average third-year boy in high school is more able to think, discuss, and express an idea, than the average college student two years older. Faculties are not familiar with our problems; their students are four years older, their wards are only a small fraction of the youth of the land, and they have prescribed what we, down among the every-day life of the people, should do. Such a proposition would be doomed to failure were these men endowed with superhuman wisdom and skill. But they are not so endowed. They are men who are not making a convincing success even in their own field. The young man learns in college that he need not work; he comes to regard his college as a social and sporting club.

The moral atmosphere surrounding him receives no attention commensurate with the gravity of the problem.

"The teaching by our college professors is the poorest in the country. College professors are not fit guides for those of us who are being paid to educate the people's children."

A state superintendent of public instruction in a state whose educational organization is among the best, expressed his opinion of the colleges in the following words:

"Colleges, with their narrow and false ideas of culture, with their ideas of educational values not subject to direct utility, insist on college methods in secondary schools and on filling the teaching positions in those schools with their own graduates and specialists. Their domination has reached a degree of intolerable impertinence. Our first requisite for efficient work is freedom, and the high school men must fight the battle to the finish. We are on the ground and know the needs of our pupils, and are in a position to accept or reject suggestions from the colleges as may seem desirable, in entire independence. The high schools in desperation have been drawing a line of cleavage between those fitting for college and those who are not. This is unnecessary, unfitting, and undemocratic."

The section on secondary education adopted almost unanimously the following resolutions:

"*Whereas*, A wide range of high school subjects is now demanded in view of the varied needs of society and the diversified interests of the different students, and

"*Whereas*, Manual training, commercial branches, music, household science and art, agriculture, etc., when well taught and thoroughly learned are worthy of, and justly entitled to, recognition in college entrance credits, and

"*Whereas*, Colleges in certain parts of the United States continue to require two foreign languages of every applicant regardless of his dominant interest, and

"*Whereas*, This requirement in addition to such work in English, mathematics, history, and science as is essential to the high school course of every student precludes the possibility of giving adequate attention to these other subjects, therefore be it

"*Resolved*, That it is the sense of the Secondary Department of the National Education Association that the interests of high school students would be advanced by the reduction of the requirement in foreign language to one such language and the recognition as electives of all subjects well taught in the high school, and be it further

"*Resolved*, That it is the sense of this department that until such modification is made by the colleges, the high schools will be greatly hampered in their attempts to serve the best interests of boys and girls in the public high school."

The department of manual training and art education and the department of business education passed resolutions asking recognition of manual training and commercial subjects as college entrance subjects.

In May, 1910, the High School Teachers' Association of New York City sub-

mitted a statement to the colleges to the effect that preparation for college and preparation for life are not now synonymous, and asked the colleges to consider the advisability of accepting graduates of four-year high school courses. In case that departure seemed too radical they recommended:

(a) the reduction in the number of so-called "required" subjects, together with
(b) the recognition of all standard subjects, as electives.

The Association asks, further, the recognition of the following subjects for college admission: music, mechanical and free-hand drawing, joinery, pattern-making, forging, machine-shop practice, household chemistry, botany, zoölogy, physiography, applied physics and advanced chemistry, modern history, civics and economics, household science and art, and commercial geography, commercial law, stenography and typewriting, elementary bookkeeping, advanced bookkeeping, and accounting.

The Boston Head Masters' Association adopted a report in November, 1910, asking of colleges the recognition of a similar list of subjects. In support of this request the report states:

> "It frequently happens that a pupil in the public high school does not discover that he is likely to go to college until one, two, or three years of the high school course have been completed. As things stand now, many of the courses in which he has received instruction and in which he may have done excellent work are entirely useless to him in so far as he may apply them to purposes of college admission. The Committee are of opinion that this is decidedly wrong."

In general, the secondary school's complaint against the college rests upon the following grounds: The college, while drawing its students from the secondary school, makes little effort to understand its needs and its problems, and on this basis to articulate with it. Instead, it prescribes the high school course of study, often to minute details, for those who are to go to college. In laying down these requirements, the college does not consider that the prescription, while apparently obligatory only upon a small minority who are to enter college, is really mandatory upon a large number who are not destined for college. In small high schools it follows at once that every student must take the college prescription. The situation is practically no better in the largest high schools; for few schoolmasters are willing to assume the responsibility of closing the door of college admission to any large proportion of their students. The college asks that all high school students shall be governed absolutely by the needs of the small minority of students who are to be fitted in the high school for college work on lines arbitrarily laid down by the college. Its demands for admission are of such character as fatally to limit the freedom of the high school in the subjects which it ought to and must teach. Furthermore, the school principals complain, these demands vary so greatly among the colleges themselves that it becomes necessary to offer different courses, according as the student is going to Harvard, Princeton, the University of Pennsylvania, or elsewhere. In one group, says the high

school teacher, is a large majority of colleges invading the high school territory, doing high school work, and seeking to draw pupils into the college before they have finished their high school course. On the other hand, there are a number of the stronger colleges exacting an admission to college with which the high schools are practically forced to comply, but which has no relation to the needs and desires of the great mass of their pupils. Between these two groups of colleges the high school and its own problem receive, according to the views of the high school men, scant consideration from the colleges.

Even in the subjects required by the colleges, the complaint is made that the college requirements tend toward a hard-and-fast form of preparation which has little educational merit. The chief influence of the college upon the high school is to make it a cramming place for the college rather than an inspiring school for the education of boys and girls. Against the domination which has thus come about, and which, in their judgment, is greatly injuring the high school, these teachers and superintendents protest vigorously, demanding for the high school a larger freedom.

As to the complaint on the part of college teachers that the high school has been turned into an imitation college, the reply is made that if this is true, it has come partly through the college men who have gone into the secondary schools as teachers, and whose chief effort is, according to many high school teachers, to make of the high school an imitation college. These men have become imbued with current notions of scholarship, highly technical and specialized; they have lost touch with the concrete world with which the secondary school man is in immediate contact. Though large numbers of them are destined to be teachers, the college has done little or nothing to equip them for their office. It has not only permitted the future teachers to specialize in one subject, but has encouraged them to do so. It has given them no comprehensive grasp of wholes, no interest in teaching as a profession. Suddenly transferred to the secondary school as teachers, they are unequal to the opportunity. If the high school boy is poorly taught, so the high school man retorts, the blame falls in no small measure on the college which trained, or neglected to train, his teachers.

AN OUTSIDE VIEW OF THE CONTROVERSY

A STUDENT of education, looking at the matter disinterestedly, has no difficulty in finding facts that corroborate both complaints. There can be no question of the superficiality of preparation of many high school graduates; there can be equally little doubt concerning the lack of consideration on the part of college teachers for high school work and the unreasonable demands which colleges, in many sections of the country at least, have imposed upon high schools. It does not follow, however, that the college is right in throwing all the blame on the high school, or that the high school is justified in throwing it on the college; or that the trouble would be cured

to the satisfaction of either party, if each could freely have its own way in dealing with the other. My conviction is that the most serious of the difficulties here set forth arise from narrowness in the respective points of view. The differences of honest men arise almost always not out of differences as to facts, but out of differences of standpoint in regarding them. The man who looks out of the west window of a room and describes what he sees will not agree with the man who looks out of the east window and describes what he sees; yet each may be equally honest. The difficulty in the present situation is that neither the college teacher nor the secondary school teacher seems to realize that the college and the secondary school are not two separate and unrelated things, but two parts of the same thing, and that the right conduct of both is possible only as each appreciates the problems, the needs, and the work of the other. It is not necessary for the college teacher to decry the work of the high school, nor yet for the high school teacher to belittle the work of the college. These two institutions form supplementary parts of our American system of education; and we must either learn how to develop the two in harmony as supporting parts of a common plan of education, or else we must find another way to educate the democracy of America.

Admitting, therefore, the truth of much contained in the complaint of both high school and college with respect to each other, let us seek to clear the situation first by ascertaining the character of material turned over to the college by the high school, and then by examining the ground upon which effective coöperation may be had. In this direction lies the hope for betterment and for a common service to the nation.

TESTIMONY CONCERNING THE QUALITY OF THE AMERICAN HIGH SCHOOL AND COLLEGE TRAINING

In seeking to detect the weaknesses of any institution such as a college or a school, the final test is not one of methods but of product. The school or the college which does well by its students, which impresses strong qualities upon all but the hopelessly lazy or hopelessly weak, has served the end for which such an institution stands. In the case of colleges and schools the testing of the product is not easy. It is one of the weak points in the administration of all such organizations that intellectual and moral results cannot be estimated in the same definite and precise way in which one weighs physical products. Nevertheless, it is still true that in the long run the high school and the college must stand or fall on the judgment of the world concerning the character of their human output, on the moral and intellectual efficiency which the graduates of high school and of college show.

It is not easy to bring to bear upon these boys and girls exact and sharp tests, but there are certain sources from which a present day measure of the efficiency of school and college may be had which both of these institutions may well consider

carefully. It seldom happens that either schools or colleges are subjected to independent outside scrutiny, or receive the benefits of the independent judgment of those not immediately interested in the particular institution concerned. Almost all opinions which reach the public concerning the value of school and college training come either from the institutions themselves, in which case they tend always to give the rosiest view, or from critics who are generally hostile and oftentimes ignorant. It is worth while to have the judgment upon the product of our schools and colleges from sources which are at once unprejudiced and friendly.

I venture, therefore, to give briefly in the following paragraphs the general verdict which is to-day being rendered from three such sources: (1) from the test of the college entrance requirements; (2) from the experience of business firms which employ college and high school graduates; (3) from the five-year experience of the Oxford tutors in the observation of American Rhodes scholars representing all the states of the Union. The agreement of the observations made from these widely different points of view as to the weaknesses of our present school and college training is most suggestive.

(1) The Testimony of the College Entrance Tests

This matter was fully considered in the Fourth Annual Report, so far as the evidence of about fifteen thousand five hundred students is concerned, who entered the colleges on the accepted list of the Foundation in the autumn of 1909. The data and discussion are given on pages 138–152. Briefly stated, the study there presented brings out the fact that a majority of the students entering college by examination failed to fulfil the tests set up by these examinations. Twenty per cent failed to the extent of about one year of high school work. Equally evident is the fact that a large per cent of the students admitted under the certificate system failed to comply with the full requirements. Under this system, however, the efficiency or inefficiency of the students as they enter college is not tested with the same sharpness and exactness of conclusion with which examinations result.

The same general results are indicated by the experience of the College Entrance Examination Board. This board examined in 1910 about two thousand students; of this number a little more than one-half were not able to be rated as high as fifty per cent. The following table shows the experience of the board during the ten years since its organization:

Ratings	*Per cent 1901*	*Per cent 1902*	*Per cent 1903*	*Per cent 1904*	*Per cent 1905*	*Per cent 1906*	*Per cent 1907*	*Per cent 1908*	*Per cent 1909*	*Per cent 1910*
90–100	7.1	6.7	6.3	6.1	4.5	5.0	4.5	5.1	4.1	3.4
75–89	20.2	17.8	20.0	21.4	20.3	18.7	17.2	18.6	14.8	16.3
60–74	32.0	31.4	31.9	32.6	31.4	32.0	31.5	32.4	29.9	31.5
50–59	11.2	12.4	11.8	12.1	12.4	13.0	14.0	12.3	14.3	13.3
40–49	11.7	12.4	11.1	11.1	12.2	12.2	13.7	12.0	13.7	13.6
0–39	17.8	19.4	18.9	16.7	19.1	19.2	19.1	19.5	23.2	22.0
60–100	59.3	55.9	58.2	60.1	56.2	55.7	53.3	56.2	48.8	51.2
50–100	70.5	68.3	70.0	72.2	68.6	68.7	67.3	68.4	63.1	64.5
40–100	82.2	80.6	81.1	83.3	80.8	80.9	80.9	80.5	76.8	78.1

(2) The Testimony of Employers of High School and College Graduates

A stream of literature has waxed and ebbed during the last decade over the question of the efficiency of high school and college graduates in business life. One who examines these statements can find support for almost any opinion which he may hold. He will find strong testimony from business men as to the satisfactory performance of graduates of both college and high school; on the other hand, he will find equally emphatic expressions from business men who insist that they will never again employ the graduates of either. Between these two extremes may be found every shade of statement by the individual employer. One man writes that college and high school graduates alike are superficial and inefficient, but that he prefers a high school graduate because he is caught younger. Still another writes that he employs in his business only college graduates whenever he can get them. The general trend of such evidence, however, goes to show that the employers of young men complain, from the standpoint of business efficiency, of exactly the same slackness in the high school and the college graduate which the Oxford tutors so clearly point out in the succeeding section. The criticism of business men is that both the college and the high school graduate lack discipline, that neither has learned to do anything thoroughly, and that, as compared with the boy who has grown up in business, these graduates are deficient in the capacity for hard work, — exactly what the Oxford tutors mean when they say that the Rhodes scholars as a rule shy at the prospect of a steady grind.

While, therefore, it is impossible to summarize in a brief statement all that is contained in the criticisms of business men concerning the performance of high school and college graduates, it may justly be said that business men would much prefer to receive, whether from high school or from college, the young man who has learned to do something well and who has acquired the mental discipline which has come from this experience, who is ready to receive directions and to follow them, than to take into their business, either from high school or college, the ordinary representative, who comes with a little knowledge of many things, with no taste for the grind of business or of scholarship, and who lacks that grasp of his own mind which can come only from having acquired a mastery of some one thing.

(3) The Testimony of the Oxford Tutors

I am fortunately able to throw further light on this same subject by means of information derived from a disinterested source. The extraordinary bequest of the late Cecil Rhodes had for its direct object the cultivation of cordial and sincere friendship between the mother country and her children. Like all such enterprises, however, certain by-products arise in the administration which are themselves of great value. One of these by-products is the opportunity to compare students going to Oxford from all parts of the English-speaking world. Nowhere else, perhaps, has there come under the eyes of one set of examiners such representative groups of stu-

dents drawn from all the English-speaking world, Europe, Australia, South Africa, and America. From the United States and Canada there are in attendance at Oxford constantly two Rhodes scholars from each state and province. These scholars are selected after careful tests, which, while they may not insure the ablest students, make it probable that the Rhodes scholars are far above the average; and they represent not one locality, as is generally the case with the students in colleges, but every state in the Union. Florida, Oregon, Indiana, and Massachusetts each send two students to Oxford as Rhodes scholars under the same conditions. Here is, therefore, a unique opportunity to estimate the relative quality of the preparation which students from the United States as a whole have received, and to compare the showing made by these students with that made by students trained elsewhere.

It may be well to meet in advance an obvious objection: the Oxford tutor is disinterested, it will be granted, but he is partial to particular forms of culture; he will naturally judge performance by his own standards and preferences, which may or may not be applicable to students whose training has been otherwise directed. As a matter of fact, however, this point may be readily allowed for without detracting from the value of the testimony. These students have studied Greek, or Latin, or history; any disinterested teacher, whatever his ideals, may be trusted to tell whether the students know thoroughly what they claim to have studied. They undertake work in Latin, history, or philosophy; any intelligent onlooker can report as to whether they put forth the steady energetic effort needed to accomplish what is set before them.

Through the kindness of the executive officers of the Rhodes Trust, I am able to present below a general view of the conclusions of the Oxford tutors with respect to their American students. The quotations here given are taken from reports made to the officers of the Rhodes Trust. They were not intended for publication, but to give to these officers an indication of the preparation and quality of the work which the American Rhodes scholars were offering. It should be remembered that these American students are, as a rule, older than the ordinary English boy entering from a public school like Eton or Rugby, since they have in nearly all cases either completed the full college course and received the A.B. degree, or have completed at least two or three years of that course. The extracts which follow represent practically all of the Oxford colleges in which American students are working. In each case, they are quotations from tutors whose duties connect them with the work of American Rhodes scholars.

1. "A has done well in athletics and is a distinctly popular man in college. Reports about his work are fairly satisfactory; but he is, like most of these Americans, rather a dilettante and does not care very much for the grind."

2. "B is quite regular, punctual and respectable. He is one of those who chafe at the discipline and rules (not unreasonably, I think), and we have released them a bit. No less than four of our Americans this last year have broken off in

mid-course and gone back. Only one was a Rhodes student; but it shows the tendency. They are attractive and attracted, but restless, volatile and never educated *gründlich.*"

3. "The Rhodes scholars who have come to this college from the United States are in point of natural ability fully the equal of our ordinary open scholars; in point of energy, seriousness and force of character they are, in my judgment, decidedly their superiors. Their early training, on the other hand, has been less thorough, and of this they are themselves conscious."

4. "I gather from the reports of the tutors in this college that the American Rhodes scholars are quite up to the level of the average British undergraduate in ability, and rather above it in industry and interest in their work."

5. "I may say honestly that I have nothing to report as to our American Rhodes scholars that would be useful. They vary a good deal. As regards the undergraduates, they live a good deal apart and have never identified themselves with the life of the college as the colonists have. On the other hand, I should say that they have as a rule more capacity, and certainly more definitely formed characters, than these last."

6. "Let me say that we have no cause for complaint as to the general conduct of the Americans whom we have in this college. At first we were a little uneasy about them, particularly about those who were above the average in age. We thought that they might resent the necessary, but to them unfamiliar, rules of the college system. We thought also that they might tend to form a clique apart. I am glad to say that these fears have evaporated. There were some slight difficulties at first; but these have been entirely overcome, largely owing to the good sense and good feeling of the scholars themselves. They are at present quite in touch with the social life of the college, and they accept college discipline as a matter of course.

"About their work we are not quite so well satisfied. The American scholars who have come to us are intelligent and interested in many subjects. But they seldom or never settle down to do a long spell of thorough work. They have nearly all ceased to develop by the time they graduate in the states, and do not really feel inclined to go much further. It must be remembered, also, that they have not the same incentive to work as a colonist scholar. The latter knows that honors gained at an English university will be of some help to him in after life. The American, on the other hand, feels that his future career does not depend in any appreciable degree upon our examinations.

"In any case, whether these are the right impressions or not, our American scholars seem inclined to drift from one subject to another, taking a bird's-eye view of each, and resting content with that."

7. "The American Rhodes scholars are certainly as a body more strenuous and serious than the ordinary undergraduate; and I should say that, apart from early training, they compare very favorably with the ordinary scholar."

8. "The American scholars in this college do not offer a wide basis for induction; but my impression would be that, while the men from the best universities are quite as good as all but our very best home products, those from the inferior universities have the disadvantage of thinking they are good when they are not,—which is about what the ordinary public school boy suffers much from."

9. "With regard to the Americans in particular, I should say that they vary more than the others. While the only Rhodes scholar we have had who has failed in Pass School is an American, and also the only one I remember who was seriously reproved for idleness, my impression is that another American is at present our very best Rhodes scholar. I think that their early training makes them in some cases superficial and inaccurate; but there is plenty of intellectual vigor and acumen. I do not think that Oxford could expect to get the pick of American universities, as we do, I hope, of colonial; and the distribution of colleges is such as to favor the weaker American colleges. But having said that, I still am strongly convinced that the Americans in college both do and get good.

"Taking a more general view, I would compare the American scholars with our average good commoner for ability and energy. They seem to me to lack accuracy and (as a rule) the power of hard grind; but they are intelligent, interested in their work, and quite as industrious as the average young Englishman."

10. "Our American scholars are intelligent, keen and alert, and there has not been a hint of slackness or idleness since they first came. In some respects they started at a bit of a disadvantage. Their American course is wider than ours, but not so thorough at any point, and they have had to alter their methods a little and readjust their point of view. At present, therefore, results are an unfair test; but I am quite sure that the men are working, and working well.

"No doubt many of the American Rhodes scholars come up with a curious superficiality of training and a diffuseness of interests which have made it hard for them to decide on a career or even on a definite course of study. No doubt, also, one has come across an instance of slackness or extravagance among them. But it would be wholly unfair on that account to say that the American Rhodes scholars have done little good here except in the way of athletics. If they are not as clever as our open scholars, they are certainly in industry and seriousness of purpose the equals of any body of men in Oxford."

11. "I can report well of C, both as to his studies and life. He is a very high-minded and seriously disposed young man. He is also able and clear-sighted, and very willing to admit any misconception under which he may have acted. Good man all round though he is, yet he has well illustrated the truth of what is so often seen and said, that the Americans begin with being too knowing. One thing C especially recognizes as new to him, namely, our Oxford thoroughness; he had never seen anything of the kind before. An extra year would have done him immense good."

12. "D has been reading for honors, and I never wish for a more satisfactory pupil. His essays were always thorough, thoughtful and well expressed. His work showed a rare combination of originality and ingenuity with sound judgment and common sense. In college life he was a strong influence, and always for good. Taking him all round, we have had no better man in college since he has been with us, and few as good."

13. "E is an intelligent man and had no difficulty with the ordinary examinations; but his knowledge was vague and he had great difficulty in expressing himself fully, or clearly, or precisely. That is the general impression I have gathered about the American scholars,—that they have a general knowledge, but

have been taught nothing very precisely, and have not been accustomed to write and express themselves clearly and with precision. They do not appear to study a subject as a whole, as we do, but, after attending courses of lectures on a portion of a subject, they appear to drop that and never revise it again. They never appear to have any comprehensive examination on the whole of a subject."

14. "With regard to the American Rhodes scholars I think that their training in America has in most cases encouraged smattering in a large number of subjects. As a general rule, they know nothing well, but know something about a great many things,—the kind of knowledge you might get from attending public lectures. Moreover, apparently even in scientific studies they have not been accustomed to keeping their hold on work for any great length of time. The examinations appear to be in work which has not been done very long before the date of the examination intended to test it. As a consequence, they at first find the Oxford system difficult, for the double reason that they are expected to get up a subject thoroughly, and are tested by an examination much longer and more severe than that to which they have been accustomed and on an extensive range of work, some of which has necessarily been done a considerable time before the examination takes place. The men naturally differ in ability."

15. "It is difficult to generalize as to the capacity of the American Rhodes students. Some few are men of large capacity and have evidently been well trained. They are accustomed to getting up the details of a complicated subject. Others have evidently been trained in getting up so large a range of subjects as is required for an Honor School. The degree is in many cases what is especially sought, and by the shortest cut."

16. "With certain exceptions, the American Rhodes scholars have been inclined to be rather too mechanical and dependent in their work, and generally to get up, rather than get into, things. Generally they have shown little sense of scholarship, and their American training does not seem to prepare them for the Honors work. In certain cases, they seem singularly uneducated. One notices among both the abler and ordinary students the same general characteristics,—a great power of making a good show of a small amount of knowledge, a readiness to be content with surface generalizations, often effectively put, without probing the matter to the bottom. The Oxford standard of accuracy and detail is quite new to them. They are, however, quick and original, and soon take to an exacter standard and a more thorough way of working. Many of them make the mistake of thinking that they are qualified to begin research work, either when they first come up or after rushing a trial school in two years or less, not realizing that one must have more than a superficial knowledge of what is already known of a subject before adding new knowledge thereto."

17. "We must remember that the Rhodes scholars are generally older men; and this explains, in part at least, the more mature character of their work. On the other hand, the fact that they have most of them taken a degree elsewhere before coming here explains a certain staleness and the absence of freshness and vigor."

18. "The Rhodes scholars who have come to me are on the average below the open scholar standard. Their training seems to lack thoroughness."

19. "The Rhodes scholars who have come to me have done well. I do not think,

however, that their general cultivation is high, and I doubt if their general knowledge is wide. But they are good men, they know what they are after, and in most cases 'deliver the goods.'"

20. "The American scholars whom we have had differ very much in respect to ability and force of character as well as in their previous training; but of all of them, even of the ablest, I think it may be said that they have suffered for the want of training in correct methods. This would apply to those who have come here to study science, medicine, law or history, quite as much as to those who have read classics. What they lack is the sort of training that Honor Moderations gives to our Honor men and Pass Moderations, or A 1, to our Pass men. They seem to me never to have learned how to face a real problem; they have preferred to study too many subjects, of most of which they have acquired the merest smattering. The effect of this is the intellectual demoralization, quite apart from the waste of time involved."

21. "As to the American Rhodes scholars, I am much impressed by the men personally. They are above the average, I think, as regards keenness and industry. I should describe them as thoroughly good fellows, but I do not think they compare with the better average undergraduates as regards scholarship and training. It will be understood that I speak of no given individual, but of a general impression, when I say that they seem very deficient in scholarship in a wide sense. Some are terribly rough intellectually, with little or no literary sense and very limited command over expression. In the composition of an English essay they have, as a rule, almost everything to learn. Their linguistic attainments are also, as a rule, slender. But they are quick to learn and very industrious, and by the end of their time here are decidedly *above* the average Honors-reading undergraduate."

These observations, offered in the frankness of every-day intercourse, are most illuminating; all the more so because they come from teachers of ripe experience, who have spoken with impartiality and yet in so friendly a spirit. They will bear careful reading at the hands of American teachers, whether in the secondary school or in the college. They throw a most helpful light, not only on the results of our teaching, but on our methods. These shrewd criticisms not only bring out in clear relief the student's lack of precision and his weakness before a hard intellectual task, but they point back unerringly to the causes of this failure in the lack of sound teaching, and in the diffuse curriculum, with its numerous and partial examinations which never call upon the student to view the field as a whole. They show unmistakably that the average American who goes as a Rhodes scholar to Oxford, even though he be a college graduate, finds the work to which he is there assigned fully worthy of his mettle; and they show also most clearly that in the majority of cases the student finds difficulty in doing his work, arising out of the superficiality and the diffuseness of his previous training in the American secondary school and in the American college, and the failure of this training to give him intellectual power. It is the characteristic weakness of our whole American life. The American has not yet got out from the spell of the pioneer days. He is alert, resourceful, but

superficial. The pioneer stage itself, however, has passed. Alertness and resourcefulness can no longer take the place of thorough training and careful preparation. To-day the great opportunity of the secondary school and of the college is to cure this weakness, not to minister to it.

NOTE: In reading the above extracts, the American reader will bear in mind the fact that the term "public school" in England is applied to the great endowed schools like Eton, Harrow, and Rugby, and not to the schools maintained by the government.

It may be well to add that the term "open scholar" is used at Oxford to designate a man who gets an entrance scholarship in open competition. These open scholars are the pick of the boys from the secondary schools. The majority of the scholarships are still given for classics, but there are scholarships also in mathematics, science, and history, and occasionally in other subjects.

A "commoner" is a man who has not got a scholarship at entrance. He does not necessarily take a Pass degree; he is as likely to read for Honors. The "average good commoner" would probably read for Honors — law, science, or theology — and might get a second class. Occasionally a commoner gets a first class, but this is exceptional. They appear for the most part in other classes — the good ones in the second class or in the upper half of the third class. The inferior ones take a Pass degree or fill up the bottom of the "class" lists.

A word of explanation may be added concerning the Honor and Pass examinations referred to in these comments.

"Honor Moderations" is a serious examination in Latin and Greek. It includes composition of a high standard, translation at sight, also of a high standard, and prepared work. This latter is of two kinds: (1) General books, as Demosthenes, Cicero's speeches, Homer, Virgil. The candidates have to be prepared to translate passages from any portion of these books and to know the literary criticism of them. (2) Special books. These they take more in detail, and study the text and subject-matter very closely. They must answer questions on textual criticism as well as in the general scholarship of the books. Honor Moderations (abbreviated to Honor Mods) is an examination in which only good classical scholars get a high class.

"Pass Moderations" is, on the other hand, a small examination involving the getting up of a few books in Greek and Latin (either two Latin books and one Greek, or *vice versa*), and also of either logic or elementary mathematics. A Latin or Greek book is generally some portion of an author; for example, the Apology and Meno of Plato make together one book.

The Honor Moderation examination (classical) is taken at the end of a man's fifth term. For example, a man who comes up in October, 1910, will go in for classical Honor Moderations in March, 1912.

Mathematical Honor Moderations are normally taken at the close of the first year, *i.e.*, a man who comes up in October, 1910, would take mathematical Honor Moderations in June, 1911.

Pass Moderations are taken at the end of the second term by the better Pass men, *i.e.*, in March by the man who comes up in October. The weaker Pass men wait until June.

There are four terms in the Oxford year, and although two of these terms (Easter and Trinity) are continuous, they are never, in the absence of express provision to the contrary, reckoned as one term.

ARE THE TWO FUNCTIONS AT PRESENT FULFILLED BY THE HIGH SCHOOL COMPATIBLE?

THE American high school is seeking to fulfil two distinct functions: (1) the preparation of the great mass of students for citizenship in a democracy; (2) the preparation of a minority—perhaps five per cent—for college. The evidence which has been referred to would go far to show that this last object is but poorly attained. The easiest way out of the difficulty would be to conclude that this outcome condemns the double effort. This has been repeatedly urged. The high school, it has been said, having essayed two tasks, falls between them: it may, by concentration on one group of studies, prepare a boy for a practical career; or it may, by concentration on a limited range of academic tasks, prepare a boy for college; but, it is urged, experience proves that it cannot do both, so long, of course, as the two do not more nearly coincide.

I wish, in contradistinction to this view, to express my firm conviction that both these objects can be compassed consistently by the same secondary school, and that, furthermore, the same methods which make for efficiency in the preparation of boys and girls for college will also make for efficiency in the training of boys and girls for their vocations. If, indeed, both high school and college are vitally related to social conditions and needs, it cannot be otherwise. Only if one of the two is an artificial structure, answering no deep or organic purpose, can the program which it sets up be out of relation with the activities pursued by the other. Assuredly this is not the case. Both high school and college subserve a single purpose: the preparation of the American boy for the opportunities and responsibilities of the type of civilization which as a nation we are endeavoring to establish. Not all can leave the school-house at the same moment in order to take their places outside its walls. But the conception is nevertheless continuous; and those who stay longer under academic influences are not for that reason being equipped to take part in a fundamentally different life. The points in which careers differ are less fundamental than those in which they agree, and just this fundamental agreement gives the unity and wholeness which makes the ultimate task of high school and college one.

The difficulty into which we have fallen seems to me in large measure to have arisen in the course of the effort to enlarge the curriculum of the old time classical high school for the purpose of fulfilling the rôle just mentioned. The movement was a thoroughly sound one. It is inevitable that into the secondary school those studies should be admitted which touch the lives and the vocations of future citizens. The difficulty has been that in our haste to enrich and to diversify the curriculum we have to some extent lost our ideal of what education means. To learn a little about many subjects, to dip superficially into the study of English and Latin and chemistry and psychology and home economics, and a dozen other things, is not education. Only that human being has gained the fundamentals of an education

who has acquired soundly a few elementary branches of human knowledge, and who, in acquiring these, has so disciplined his mind that it is an efficient instrument ready to be turned to whatsoever task is set before it. The high school student is led to believe that education is attained by learning a little of each of many things; he gains, therefore, a superficial knowledge of many subjects and learns none with thoroughness. He lacks the hard fiber of intellectual discipline. Such a youth has not been educated. That only is education which sets a boy on the way to use his own mind for his pleasure and his profit; which enables him to attack a problem, whether it be in school or in business, and to think out the right answer. Education, rightly understood, is a power-producing process; and the serious indictment against the secondary school system to-day is that its graduates do not acquire either discipline or power. The real struggle in the American high school is between that influence which makes toward thoroughness and that which makes toward superficiality; and if the high school is to become the true training-place of the people, the ideal of thoroughness must supplant the ideal of superficiality.

But it must be remembered that thorough teaching can be had only where the individual teacher keeps within reasonable limits. The city high school with twenty or thirty teachers can cover a large area without sacrifice of quality; the village high school with two or three teachers is at once limited to a small number of possible subjects. Elective range is desirable only if the high school staff is competent and relatively large. A small high school with a limited number of teachers can do as good work in the preparation of girls and boys for college as a large high school, but it can do this only by confining its curriculum to a limited number of subjects. A small high school which attempts to give many courses is sure to be weak in most of them.

In visiting a college recently in one of the older and richer states—a state very backward in the development of its secondary school system—I was struck by a remark of the officer in charge of admission which bore upon this matter. After looking over with him the admissions to his own college, I inquired the name of the high school from which he obtained the best prepared students. He answered that the best prepared students came from a high school in a small village, conducted by two teachers, a man and his wife. This result arose out of the fact that here were two competent teachers attempting to instruct pupils in only such subjects as they could teach effectively.

This is no argument against the enriched curriculum of the secondary school, provided the enriched curriculum does not lead to dispersion and so defeat the end of all education. But let the boy understand that if he desires to study agriculture, for example, he cannot study all the other subjects in the curriculum; let him take with agriculture one or two things which will form the trunk of his educational structure and learn them well and soundly. For only in this way can he gain the intellectual discipline and the intellectual strength to make his way either in college or in a vocation.

Illustrations of divergent tendencies may be taken from curricula for high schools set forth by state boards of education. Thus in Oregon one of the state regulations governing the high school course is that "no pupil shall carry more than four subjects at any one time." In Kansas the college preparatory course for high schools having three or more teachers contains no more than four subjects each term, with certain variations and elections. On the other hand, in North Carolina the Latin-Scientific course is made up each year of six distinct studies, aggregating twenty-five hours a week in the first two years, and twenty-six hours in the latter years; and in Maryland a similar requirement of six studies is made, whose recitation hours equal twenty-seven each week. In the Boston Latin School the student carries six studies, except in the last year, with the work each year containing twenty-three hours a week.

The boy who desires to enter college and the boy who desires to enter business alike need to be well grounded in fundamental studies and to gain a real mastery of a few things. In a word, the same ideal of education which will send up to college competent candidates will also send into the business world well-trained beginners. This lesson is one which has to be retaught, not only to each generation of youth, but to each generation of schoolmasters. Each generation finds new studies which it believes to be specifics for the training of the youth of its own time and its own country. There are, however, no educational specifics which fit the varying temperaments, tastes, weaknesses, and ambitions of the youth of a nation. Perhaps the matter has never been more clearly stated than in the saying recorded by Thucydides, "We should remember that man differs little from man, except that he turns out best who is trained in the sharpest school." To a very large degree the disciplinary side of education in both high school and college has been forgot in the past twenty years. During the same period the family discipline has also been softened. The total effect is seen in the unreadiness of the great mass of youth to face a hard, steady pull, whether in college or in business.

Our educational curricula to-day, both in the high school and in the college, resemble closely the bills of fare which one finds in the hotels, on which are set down dozens of dishes under high-sounding names; and yet one looks in vain through all this medley for a simple and wholesome meal. The high school scholar, whether his ambitions lie in the direction of a college or not, can do well only a few studies in each year of his high school course. To do these well is to make the beginning of an education. To study a large number of them superficially is to treat one's mind somewhat as one would treat his stomach if he ate faithfully something of every article on the bill of fare. There is nothing in the conduct either of the high school or of the college admission requirements which points toward a simple and thorough ideal of study.

To such an argument as this the high school teacher and the high school superintendent are much inclined to reply that the high schools must include all the things

which the American people are ambitious to know; that they must teach their pupils something of a great many things in order to satisfy popular demand. Everywhere in the high school, as in the college, the cry is, "We must keep up with the competition of our rivals." This competition makes not for educational efficiency, but for educational display.

It is true, as it seems to me, that the high school breaks down in both its functions and for the same reasons. It appears clear, however, that the educational ideal which makes for a simple and thorough curriculum for the individual serves equally well the boy who looks toward college and the boy who goes directly from the high school into a vocation. These two functions are not incompatible under a right educational conception.

THE PRACTICAL BASIS OF ARTICULATION BETWEEN HIGH SCHOOL AND COLLEGE

If the preceding argument is sound and the public high school is to serve permanently both as a training-place for American youth and as a fitting-school for college, the question of a just and fair method of transfer from secondary school to college becomes one of paramount importance to the college. With this question the better colleges of the country have labored for years past. Notwithstanding the progress which has been made, it will be admitted generally that the transfer from high school to college is still in an unsatisfactory state. To no other men are these difficulties brought home so keenly as to those who undertake to administer the requirements for admission to college. The condition of mind of many conscientious college officers is reflected in the following statement made to the Foundation by a professor in charge of the admissions to an old and well-known American college: "At this time of the year, when I have survived another college opening, I hardly know which aspect of our system of admission exasperates me most — lack of adaptation of our examinations to their purpose, with the attendant waste and often cruelty in their administration, or the lawlessness they provoke, which brings to bear upon us all sorts of pressure to set aside our published standards and disguise the fact under the special student fallacy." No less unsatisfactory is the situation of the college which accepts its students upon certificate.

If the college is to look to the high school for its students, how shall the two connect with justice to both?

It seems clear that the high school and the college cannot be, and ought not to be, mechanically articulated, with no overlapping of the work of one by the other. There is no valid reason why some subjects that must be taught in college to some students should not be taught in properly equipped high schools as well. On the other hand, there seems no valid reason why properly equipped high schools should

not teach some subjects to some students that are ordinarily reserved for treatment in college. The idea of a sharp mechanical relation without overlapping between high school and college may be definitely abandoned.

The history of this matter is well illustrated in the evolution of the entrance requirements of Harvard, our oldest college. Forty years ago the Harvard admission requirements permitted no election and called for examinations in three subjects only, Greek, Latin, and mathematics,—a practical imitation of the Oxford and Cambridge responsion examinations. To-day the Harvard requirements for admission exact examinations in seven subjects and permit election from a list of thirty. This expansion has come about through three revisions of admission requirements, made at intervals of about ten years each. Each of these revisions represents a stage in the conflict between old and new ideals in the relations of school and college and between old and new subjects. On each occasion there was effort on the part of the old subjects to exclude or repress the new ones. Each time the old subjects were compelled to recede a little, owing to increasing recognition of the democratic variety of interests growing in high schools and colleges. It is to be noted, however, that the fact that the college now recognizes practically every subject taught in the high schools is not a proof that the new subjects were entirely victorious. The long list of electives just referred to stands for a freedom more apparent than real. The victories of the new subjects have been barren of results largely because of certain administrative devices which have the practical effect of retaining the field for the old subjects while seeming to yield it. This experience of Harvard College is in large measure the experience of the country. New subjects have been accepted with greater or less elasticity in the method in which their acceptance was handled. The last twenty years have seen a constantly growing tendency on the part of colleges, both east and west, to accept the subjects which the high school believes it ought to teach to its students, but during the same time the apparent freedom of choice of the high school student looking toward college has been practically limited either by the method of administration of the examinations in the one case, or by the absolute requirement of certain studies on the part of all colleges.

There are to-day in operation two methods of dealing with the transfer of students from high school to college: (1) The college accepts the graduate of an approved high school on condition that he has satisfactorily completed certain definite studies in his high school course. This is the form of admission employed by most of the stronger state universities, such as Wisconsin, Missouri, Indiana, Colorado, and California. Such institutions require from one-fourth to two-thirds of the work of the candidate presenting himself for admission to college to be taken in assigned subjects—usually English, mathematics, foreign languages, and history. (2) The examining colleges, which are now confined to seven of the stronger colleges in the eastern states, admit the candidate upon the basis of entrance examinations.

The objections to each of these methods have been clearly pointed out by many

writers. Briefly, they are the following: under the first method the college makes no independent test of the fitness of the candidates it receives, and while in certain states the scrutiny of the state university has undoubtedly had an admirable influence in holding up the secondary school to fair standards, such scrutiny does not form a sufficiently sure test of the general qualities of the student's preparation. In addition, the requirement of certain studies limits, sometimes in an injurious way, the freedom both of the student and of the high school. The method of admission by examinations, together with the acceptance of a wide list of electives, was intended to overcome both of these difficulties. Unfortunately, it has failed to accomplish either purpose, and a majority of students are to-day accepted after examination who have not passed fully the examinations themselves. Furthermore, the tendency of the specialized examinations to turn the high schools into cramming places has been a most serious result.

While one is compelled to admit that the admission to college by examination has not accomplished all that is to be desired, one ought not to lose sight of the enormous good which has been accomplished by the setting up of a standard of admission to college which was at least definite. Although but a few colleges to-day continue to admit by examination only, those institutions include our oldest and strongest colleges, and the effect of their standards of admission upon all other colleges has been of great value. At the time when their action was taken, it was not a question between tests of admission of greater or of less efficiency; it was a question of no tests at all or tests having at least definiteness and meaning. The work of the College Entrance Examination Board in unifying and harmonizing the methods of entrance examinations has been a notable contribution to our educational progress. Its work has paved the way for the next step—that is, to substitute for the present piecemeal examinations a few simple examinations which shall demand a high order of efficiency in the fundamental studies; this should get rid at once of the conditioned student in college and leave the high school a larger measure of freedom.

Few appreciate the piecemeal character of our present admission examinations. Not only do they involve a separate coaching in each study, but they may by skilful use of the requirements be distributed over several separate examinations. The acceptance of conditions is an inevitable consequence. This means that a candidate admittedly deficient undertakes in the freshman and sophomore years to do not only the work of the regular well-prepared student, but the work upon which he is conditioned as well. The situation is a thoroughly illogical and impossible one, and as a matter of fact, the college rarely holds the student up to the actual performance of the work in which he is conditioned. The piecemeal examination has served its purpose, but it has reacted upon the secondary school in a way which no one anticipated, and we are now ready for another step forward in the matter of college entrance tests.

In order to arrive at a just basis for transfer of students from high school to college, it is necessary to go back at every step to a realization of the purpose for which the high school and the college exist. The real purpose of the college is attained not by having the high school teach certain subjects, but by having it become a truly efficient school,—a school in which girls and boys are taught to think, to face real problems. Any high school which becomes such a place of training will send up students for college who will have not only alertness and initiative, but a knowledge of fundamental subjects and a capacity for hard work.

It seems clear, therefore, that if the high school and the college are not to be mechanically articulated, if certain studies are to be common to the two, some form of test for admission must be devised by the college which shall touch the essential qualities which have been developed by the student in the high school rather than test his ability to meet a specific technical condition. In addition to this, the college must so deal with the student who has had a given subject in the high school that when he continues that subject in the college, his appetite may not be dulled by a mere repetition in college of the things he has already had in the high school. In other words, the unavoidable overlapping of high school and college must not be allowed to take away the enthusiasm of the student.

The crucial question before the colleges is, What tests may the college apply to candidates coming to it from the high schools which will at the same time conserse freedom of the high schools and reveal the intellectual powers of the candidates?

THE PRACTICAL STEPS THE COLLEGE CAN TAKE TO STRENGTHEN SECONDARY EDUCATION

While the improvement of secondary education must come from a return on the part of the high school to simpler and more sincere standards and efforts, it still remains true that the college has an enormous influence upon the development of the secondary school and may contribute markedly to its improvement by wise action. Not only is this true, but the hope of the college for the future lies in this improvement. Only by the betterment of secondary education will the college be able to draw into its classes better material in place of the ill-assorted body of students which now make up the entering classes of most colleges. In no other country of the world do the higher institutions of learning expend such prodigious effort on material not yet ready for their teaching as in America.

The practical steps by which the college may proceed seem to be three:

(1) The college can articulate with the secondary schools of the state and of the region in which it stands.

(2) The college can concede to the secondary school a larger measure of freedom.

(3) The college can substitute for the present highly varied and technical con-

ditions of admission (which are constantly ignored in practice) simple tests which touch the knowledge of fundamental subjects and the possession of intellectual power, and then live up to these tests.

In respect of each one of these matters I venture some further statement. Articulation with the secondary school system of the state is so evidently the duty of the college that it would seem unnecessary to argue it. It goes without saying that all colleges must draw their students from the secondary schools; and unless they articulate with these schools in the sense used above, there is no promise for students who are reasonably or uniformly prepared. Generally, failure to articulate has meant that the college was really doing high school work. Throughout many states of the Union, in the west and particularly in the south, where weak colleges abound, little effort has been put forth to make junction with the high school for the simple reason that the colleges have themselves been doing high school work. The four-year high school has practically come to be throughout the United States the standard secondary school; and the movement in the west and south to articulate with it is the surest promise of educational advancement that these sections of the country show. The very idea of the college contemplates a fairly homogeneous preparation in its students; and no great step in our general educational progress can be made until all colleges rest squarely upon the standard secondary school.

While most colleges have injured secondary education by failing to exact the preparation of the four-year high school, a few of the older and stronger institutions have gone to the other extreme and have demanded more than can fairly be asked of a student in four years of high school work. The entrance requirements for Harvard, for example, have been raised until they are no longer within the reach of the standard four-year high school, unless that school be of the strict classical type. I cannot regard such action as any other than a misfortune to education and to the country. The right way to raise standards would seem to be not to put college entrance requirements out of the reach of the good high schools, but to articulate consistently with these schools and to demand a high grade of performance.

In the second place, the time has surely come when the college must give increased freedom to the secondary school. For a college to announce that it articulates with the secondary school, and then to prescribe all or most of the studies which the student must take in that school in order to enter college, is not articulation. The college must in large measure accept the judgment of the secondary school as to what is best for the boy or the girl to study. The real question in which a college is interested is not, What prescribed studies are taught? but rather, Is the school a place where boys learn to think?

The danger of chaos or of complete surrender to narrow practical ends is, I suspect, less than might be supposed. In the first place, there is no reason why all colleges should seek to attract the same body of students; that is, in a country where there is a permanent likelihood of an abundance of institutions, some differentiation

may well take place among them. Old established institutions believing in the superiority of classical training can well afford to stand by their faith; they will not lack a following. And if the classical discipline and classical models still indeed have a service to render, these colleges will see to it that the service is not omitted. Such institutions may have an especially clear field in a state in which the state university has gone far in the opposite direction,—accepting freely high school graduation as a sufficient recommendation.

Our protection against narrow or one-sided ideals does not stop here. Revolutions are proverbially incomplete; man cannot divest himself of his past, even if he would. School teachers are on the whole conservative, for their teaching follows the line of their own training. Accustomed as we all are to value certain sets of studies, no freedom to do otherwise will rapidly result in their entire displacement. There will be a few high schools in which the heads will believe that they have found new educational specifics in certain of the so-called utilitarian subjects; but in the main, the high schools will retain in large measure the fundamental subjects like English, mathematics, history, and Latin, as the trunk of their curricula, and whatever the vigor with which in the first place amid unaccustomed freedom novelties are tried, the inevitable disillusionment will always tend strongly to reinstate and to conserve the old.

Finally, enlarged freedom for the secondary school does not mean that it is to be cut loose in order to toss about without responsibility. The whole burden of my argument looks to a diametrically opposite result. I have urged not that the secondary school should be detached, but that college and secondary school should together see their problem as one. All danger of reckless experimentation by the high school, standing by itself, is over, if college and high school men frankly come together to wrestle with a common problem. Freedom for the high school, as I have urged it, is freedom from arbitrary coercion, freedom from compliance with artificial tests and standards. That granted, the college necessarily sees the function of the high school and its own relation thereto in a new light; a situation is created in which an intelligent, scientific treatment of our educational problem is made possible for the only two agencies that can possibly deal with it at all.

There is, however, another side to the matter. Before the high school graduate as such shall be without question admitted to college, high school graduation can be fairly required to represent more stable educational values. The graduates of the German *Gymnasia* enter the university as a matter of course; but these graduates have all had substantially an equivalent training, even though some come from the classical and some from the scientific schools. Their training has been of the same quality; the presumption that they are all equally fit for high opportunities is therefore very strong.

The college may well grant the general principle for which the modern high school contends without fully conceding that these schools are as yet so manned and

organized as to get equal educational value out of all subjects newly introduced into their curricula. But I am persuaded that a deadlock can be readily avoided. Both parties mean to arrive at the same end; both desire the development of a high school system covering the entire state and so effectively conducted that its certificate of graduation shall be sufficient evidence of adequate training. The college is perhaps inclined to be too sceptical as to how nearly we have approached this ideal; state superintendents and high schools may be somewhat too confident that the goal has been reached. There would appear to be no insuperable difficulty in the way of reaching through conference a *modus vivendi*, subject to revision by further conference from time to time, as the development of the high school system establishes more nearly the value of new expedients. Both sides must at each step concede something in the interest of effective educational administration. The colleges must go on; and they must therefore maintain more and more strictly a standard that shall be a guarantee of genuine fitness; the high schools must continue the process of expansion and adjustment; yet nothing but good can come to them, if this process is so controlled that pedagogical mastery of the new material introduced into the curriculum is assured before the entire curriculum is thrown open without restriction.

This whole question is inextricably mingled with the third matter to which I have alluded, namely, with the character of the tests which the college imposes upon students who enter it from the secondary school. Those hitherto applied have tended strongly to promote not the education of students in the high schools, but a cramming process hurtful alike to secondary school and to college. They have not indicated the intellectual ability and power of the student, but his capacity to absorb within a given time certain definite prescribed things. The process has tended to turn instruction in the secondary school into an uninteresting routine, whose end is to get a boy into college, not to develop him. Perhaps no more true or more serious complaint is made to-day against the college than this: the college applies to candidates for admission tests which are wholly inefficient, and which do not insure the fundamental qualifications which it ought to exact.

What sort of a test can be devised which will try the student's general knowledge of fundamental subjects and his ability to use his mind? The English university responsions examinations furnish some suggestions by way of reply to this question. Students entering Oxford or Cambridge undergo no such detailed examinations as are exacted of students entering Harvard, or Columbia, or Princeton. They are, however, called upon to pass examinations in elementary mathematics, in Latin, and in Greek, which test their fundamental knowledge of these subjects and their ability to think. The examinations are of such a sort that they cannot be met by a few months of cramming. They do not react upon the secondary schools in such way as to make them mere cramming places, for the preparatory schools invariably carry their pupils beyond the necessary point. The student who is to be admitted must pass the examination entirely; for if he fails in part, he fails of admission. Imagine for a moment

what an effect would be produced if all the candidates for admission to Harvard and Yale, Princeton and Columbia, were examined in elementary English and rejected altogether if they proved unable to write good idiomatic English! This one step alone would go far to shut out of college a large proportion of the unfit and to make the work of the secondary school sincere. It is entirely feasible for the college to admit to its examinations the graduates of any well-conducted high school, and to test by a few simple examinations the grounding of such students in the fundamental studies and their intellectual grasp. The specter of the colleges overrun by applicants whose only qualifications are typewriting and woodcarving is a specter only. The college has it within its power, while leaving practical freedom to a high school with which it cordially coöperates, to insist that the students who come to it shall know some things thoroughly and shall have acquired a certain intellectual power and intellectual sincerity.

The practical question arises in the choice of fundamental studies, and in framing an examination which will test the mastery of a subject and not the efficiency of a coaching process.

If the college wishes to secure this result, it must find some test of high school performance other than the mere acceptance of a certificate, or the passing of detailed examinations in which a large proportion of conditions are allowed.

Some such test would seem to be applied if colleges admitted to their classes graduates of high schools only after passing elementary examinations similar to the English responsions examinations in three subjects, two of which must have been pursued for at least three years. A thorough test in English should be a part of this examination. But this need not mean a prescribed course of reading in the high school. The high school graduate might present any good list of books which he had read, and his mastery of English might be tested in all his other examinations.

If the college will have the courage to send back to the high school the students who come up with three years of English and yet cannot read and write the English language, who come up with three years of mathematics and yet cannot apply their mathematics to the simplest problem of every-day mechanics, who present two years of history and yet have no knowledge except the isolated dates which they have memorized for examination, who offer four years of Latin and yet cannot translate into idiomatic English an ordinary Latin sentence; if the college will have the courage to send back such students to the high school, as unready to enter college, there will be no reason to fear the flood of applicants who offer typewriting and domestic economy and manual training or any of the other so-called practical studies. And more than this, the boy who has really studied one of these subjects fundamentally, not superficially, who has done his work thoroughly, not for examination, may well prove to have gained that ability to use his own mind which is the real requisite for college entrance.

THE OBSTACLES TO A BETTER COÖPERATION OF HIGH SCHOOL AND COLLEGE

WHAT, now, are the obstacles in the way of so natural and desirable a consummation as has been here sketched?

They lie partly in the natural inertia of organizations, partly in the lack of contact between high school and college, but mainly in certain tendencies characteristic of our national attitude in matters educational. It is never easy to move organizations, once they have assumed form. The situation is somewhat similar to the attitude of the banks with respect to a reform of the currency. The weaknesses of the present system everybody knows. But the bankers are slow to let go of the system, bad though it be, to which they are accustomed.

In addition, colleges and high schools grew up apart; they have only recently come to coöperate with each other. College men, as a rule, have but faint knowledge of high school interests, of high school work, and of high school conditions. At present there is no means by which the colleges scattered throughout the country are brought into relation with the great body of high school teachers and officers. For a long time the American college held itself aloof from the general system of education. In the case of many denominational colleges, there was actual hostility toward state schools. In consequence there is even yet little contact between college teachers and high school teachers, and little opportunity for either group of teachers to realize how mutually dependent their two institutions are. It is not easy to bring the college teacher into contact with the large number of secondary school teachers in a great state; and for this very reason the obligation of the college to study the secondary school system and to bring itself into sympathy with secondary school conditions is all the greater.

Finally, the most serious obstacle of all is that in the vast competition that has been going for the past two decades, both the colleges and the high schools have been too often more interested in numbers than in education. The high school which can offer the largest number of courses and enrol the largest number of students is, in the public estimation, the most successful high school; the college which can draw into its halls the largest number of undergraduates, whether it be a real center of spiritual and intellectual life or not, is looked upon as the most successful college. Promotion, rather than education, has been the aim of both high school and college for twenty years. The game has been played so hard that to-day it is difficult to get attention upon the real problem. The great question is how to get the largest number of students. Each class of our educational institutions covets the students of the others. If the oldest college of the country should by a sound educational policy cut down the number of its undergraduates, the alumni have been so trained that they would regard it as the greatest misfortune that could happen. Lack of contact and lack of sympathy, lack of time and lack of opportunity to deal with the real educational problems, and the increasing and never ending competition for numbers,—

these are the real obstacles which stand to-day in the way of a true coördination of high school and college.

THE TRAINING OF TEACHERS

In what has been said hitherto little reference has been made to the most vital need of both secondary school and college, that is to say, to the need for good teachers. The whole question of an efficient secondary school or of an inspiring college rests in the end on the intellectual, moral, and social equipment of the teachers. The education of a whole people is the most serious business of a modern state. A national program of education embraces not only the schools, both elementary and secondary, which train for citizenship, but it embraces also the industrial and technical schools, which aim to make of each citizen an effective economic unit. Such a complete system of education is expensive, but it is less expensive than ignorance and inefficiency.

While the various states have been willing to spend considerable sums on the training of teachers, there has been no general recognition of the fact that the conditions must be made such as to draw into the profession of the teacher able and ambitious men.

Nor is the question of obtaining good teachers wholly a matter of paying good salaries. There has not yet been given to the training of the teacher, whether for elementary or secondary schools or for college, that sort of careful consideration which the importance of the matter demands. It is true that in all states of the Union certain provisions have been made for the training of teachers, but such arrangements still lack a careful and thorough consideration of the whole question of the teacher's education, of his technical training as a teacher, and his mastery of the subjects he is to teach. There is as yet no unanimity of practice or even of opinion with regard to the function of the teachers' courses or so-called normal courses as distinguished from the ordinary general courses in different subjects. For example, the distinction between a course in history and a course for teachers in history is very vague.

The result of this situation is that the announcements of various colleges in regard to their teachers' courses are quite meaningless to the student considering entrance to these colleges or to the superintendent or board of education employing the teacher after his graduation.

A considerable number of colleges—particularly in the middle west—have announced themselves ready to train teachers, when as a matter of fact they are taking no special steps in the matter. They merely re-list certain of their ordinary courses and announce them as courses for the training of teachers. A course in psychology—a name which covers a multitude of academic sins—is usually sufficient ground for the announcement of a "Department of Education." Much of the fric-

tion which has arisen in certain states between the normal schools and the colleges has grown out of the stand which the normal school has taken that a vigorous professional training for teaching is necessary in addition to a training in the subject-matter.

On the other hand, there can be no denying the fact that hitherto the normal schools in most states have failed to live up to their responsibilities in the matter of adequate academic standards and respect for the field of the high school. In many cases the courses in normal schools are mere reviews of courses already taken in elementary schools or in college. A few remarks on the method of teaching do not elevate these courses to the level where they can be fairly accepted by the colleges for credit when later the graduate of the normal school makes application for admission to the university.

Furthermore, the widely varying work undertaken by the normal school in different states shows how uncertain is the estimate of its function. Throughout the middle west one finds normal schools offering the equivalent of the full college curriculum and conferring the bachelor of arts degree. The normal schools of other states are engaged in the work which properly belongs to the elementary school or the high school. In this latter case the normal school becomes an active competitor with the elementary schools and high schools, a result most disastrous to the educational interests of the people. These schools are direct competitors of elementary and secondary schools, and their effect is to discourage the development of good high schools. Rarely have the normal schools devoted themselves effectively to their most urgent work—the training of teachers for the elementary rural schools.

Again, in the colleges one finds a strong tendency amongst those who are to become teachers to specialize in a single subject. When this is accompanied by the absolute lack of supervision of the young teacher, it is not to be wondered at that many of those who go through the college departments of education and undertake high school teaching are utterly untrained, and start with no sure conceptions of what constitutes good teaching.

As an example, something could be done in this matter, at least, by the superintendents of the large city systems through the appointment of one or two capable teachers to act as instructors and supervisors of young teachers. It might not be impossible, if the proper supervision were given, to secure a moderate number of candidates for teaching at a nominal salary who would be glad to take something like the "Probejahr" of the Prussian candidate for the teaching profession under the direction of competent teachers.

From whatever point of view one considers the matter of efficient teaching, it is clear that the present situation is confused. This confusion has been much increased in recent years by the immature excursions of the colleges into the field of professional training for teachers; by the graduate schools of universities, which are nominally training men for research who really are afterward to undertake teaching for which they have neither training nor enthusiasm; and finally by normal schools

themselves, which have in some cases appropriated the work of the arts college, but more often have invaded the field of the secondary and elementary schools. The difficulties and weaknesses of the situation are evident alike to those in the college or university, in the normal schools, and in the high schools. The time seems ripe for some fair study of the whole situation which shall take into account the point of view of all these schools, and shall set forth some definite answers to the following questions:

(1) What is at the present time a fair, and at the same time feasible, course of training for the teacher of the elementary school, and of the high school, looking both toward a grounding in the fundamental subject-matter, and in the right training of the candidate in the technique of teaching?

(2) What is the function of the normal school in the state system of education, and how ought it to be related to the high school and the college?

(3) What part ought the college to take in the training of teachers? Is the school of education as developed in the college an effective place for professional training, and what facilities ought a college to have before undertaking to train teachers?

THE DISTINCTION BETWEEN A SYSTEM OF GENERAL EDUCATION AND A SYSTEM OF INDUSTRIAL AND TECHNICAL EDUCATION

THERE is to-day a widespread movement in the United States looking toward the development of industrial and technical education. No one who knows the industrial conditions of America can doubt the need of such schools. The apprentice system, in which hitherto our skilled workmen were trained, has passed away. To-day in all civilized states the workman must learn the fundamentals of his trade in some form of school which takes the place of the apprenticeship of former days. With this foundation, he may then hope to become, with moderate practice, a skilled journeyman, and one with a far larger outlook than his father had before him. In order that this plan may succeed, it is necessary that the trade school should be thorough, and that the boy trained in it should have access, as a junior journeyman, to the trade which he chooses.

In the general movement now going on for the development of industrial and trade schools, two plans have been advocated. One is that trade instruction shall be incorporated directly into the school system of the country; in other words, that the high school itself shall become, for those who desire to make it such, a trade school. The advocates of the other plan urge that trade instruction should be given in separate schools, these trade schools being articulated at the proper place with the general system of schools.

It seems likely that successful trade instruction will in this country be brought

about in both these ways; but at the same time it is well to remember that the system of general education of a country cannot be turned into a system of utilitarian schools without sacrificing the essential things for which a system of general education stands. The public school system of the United States is intended for the general training of children and youth in those studies which make for intelligence, for honesty, for industrious living, for patriotic devotion to their country, and for training in the social obligations of a democracy. Into such a school the study of agriculture may, for example, rightly be introduced, and become a helpful and useful study. But it will not be possible to change the school into an agricultural trade school without losing the essential things for which the public school stands. The same is equally true of other trade subjects, as for example shop-work. For this reason I am inclined to think that many who advocate the extensive introduction of practical studies into the public high schools will be disappointed in the results which will come through their introduction. In a country high school the study of agriculture will not result in turning out from this high school fully trained practical farmers. Agriculture, however interesting and useful it may be made in such a school, must nevertheless serve the purpose which all other studies serve,—the general training and culture of the pupils. This fact appears to be overlooked by those who believe that the mere introduction of agriculture as a study in the rural high schools will at once turn back to the farm great numbers of boys and girls who now earn a livelihood elsewhere.

The high school and the elementary school in America belong to the system of schools intended for the general education of the whole people. They may be enlarged and improved by including in their curricula studies which touch closely the lives of their pupils. They cannot, however, be turned into trade schools without sacrificing the main reason for which they exist.

AN ADEQUATE STATE SYSTEM OF EDUCATIONAL SCRUTINY AND ADMINISTRATION

The considerations treated in the foregoing paragraphs bring up at once a topic often discussed in recent years, namely, the need in each state of the Union of an adequate system of educational administration and supervision. It is clear from our experience of the last twenty-five years, as well as from that of other nations, that somewhere in each commonwealth there should be an educational agency dealing with the higher institutions of learning and with the secondary and elementary institutions as well, for these schools are not unrelated enterprises, but are all parts of one thing. Such places should seek out the ablest men.

The most serious effort which has been made in this direction is in the state of New York, where the University of the State of New York has had supervision

over elementary, secondary, and technical education; and its work has resulted in far greater uniformity and efficiency in the schools of New York than is to be found in most of the other states. The University of the State of New York, practically the State Department of Education, has had, however, no authority over higher institutions of learning, or at least, it has never exercised such authority. For this reason, therefore, it has been able to do only a limited work in the correlation of higher and secondary education. Recent efforts to deal with the institutions of education in Iowa and in Massachusetts were described in my last annual report.[1] The creation of such commissions undoubtedly marks a step in the direction of an expert supervision of education in the interest of unity, economy, and efficiency, but as tried in both these states the commissions have certain weaknesses which make the ultimate outcome more or less doubtful. In neither Iowa nor Massachusetts has this body the supervision of the whole educational system. Again, even when composed of able and intelligent men, such commissions must in the end depend on expert advice; the members, being busy men, will find it difficult to give to the important questions before them the requisite time and study. It will not usually be found easy to bring busy men together for long deliberations.

In many of the western states, where public education has from the beginning been a matter of state pride, a superintendent of education has existed, with a very inadequate administrative force, however, at his command. The positions have been in the main political, and generally have lacked the power, responsibility, and financial reward necessary to attract strong men. Furthermore, as a rule, these officers have had no relation to higher education, whether in institutions under state control or in those upon private foundation. Colleges and universities have almost universally resented any inspection or scrutiny on the part of the state. This objection has not been without justification in the past on the ground that the men at the head of state departments of education have generally been appointed through partisan considerations. Very rarely have they been men of such high educational qualification as to fit them for a general scrutiny of state institutions of learning. Such places ought to command men of the highest qualifications. They should be places of such dignity and security as to attract the best men. Until that time comes, it is idle to hope that the higher institutions of learning can be helped or the state system of general education unified or made efficient by being placed under the departments of education. Just so long as the state superintendent's office is in politics, its influence will be thrown toward those educational measures which count for large numbers rather than toward those which count for efficiency and therefore for the ultimate interest of the whole people.

All of this, however, does not detract from the fact that the state unquestionably should have the power to scrutinize and report upon the educational institutions it has chartered, whether they call themselves state institutions or private institutions.

[1] Fourth Annual Report, pp. 107-111.

There are no private colleges in the real sense. Not only is this true, but it is also true that the college or university has everything to gain by an intelligent and wise public scrutiny. College men have exactly the same human qualities that all other men have. No human organization can be hurt by letting in the light of a decent publicity, so long as educational freedom is not taken away. College men have been among the most insistent in demanding a public scrutiny of corporations. The demand is entirely just, and no other corporations have more to gain by a wise and friendly scrutiny on the part of the state than educational corporations.

The practical question is how to secure an agency in the present stage of educational and political development which shall be able to bring into helpful coöperation the more or less detached institutions now engaged in the educational work of the state—universities, colleges, technical schools, normal schools, high schools, and industrial schools.

In the present situation a commission seems the most practicable agency to which one can turn. A small state commission containing representatives of the various educational institutions and empowered to scrutinize and report upon institutions of all kinds would seem likely to bring about a better understanding of common problems and a more just view of the whole educational problem. Such a commission would naturally have a representative from the office of the state superintendent, from the state university, from one of the strong endowed colleges, from the normal schools, and from the high schools. Such a commission would be a step forward in the use of the expert in American education. A body so chosen, comprised of educational experts who were also high-minded men, could at least do two things. It could let the people of the state know what their institutions were actually doing, and it could point the way toward a better understanding, a closer coöperation, and a higher efficiency of the separate parts of the state educational system. For the state problem of education is one problem, and it will never be efficiently solved until the various agencies for education have abandoned an attitude which is often one of hostility or of armed neutrality for one of active coöperation. As in all such efforts, the first step to be taken is to disarm suspicion and promote good-will.

HENRY S. PRITCHETT.

October 15, 1910.

PART III
DE MORTUIS

DE MORTUIS

EBEN ALEXANDER

Eben Alexander was born on March 9, 1851, at Knoxville, Tennessee, and was graduated from Yale University in 1873. He was immediately appointed instructor in ancient languages in the University of Tennessee, and in 1877 he was made professor of ancient languages, being from 1884 to 1886 also chairman of the faculty, and in the latter year president of the State Teachers' Association of Tennessee. In 1886 he accepted the professorship of Greek at the University of North Carolina, and from 1900 to 1910 he was also dean of the university.

In 1893 Professor Alexander was appointed Envoy Extraordinary and Minister Plenipotentiary of the United States to the government of the King of the Hellenes, and resided at Athens until 1897. In 1893 the University of North Carolina gave to him the degree of doctor of laws.

On October 2, 1909, the Carnegie Foundation, in consideration of Doctor Alexander's distinguished service, granted to him a retiring allowance. He died in Knoxville, Tennessee, on March 11, 1910.

JOHN ANDREW BERGSTRÖM

John Andrew Bergström was born on October 28, 1867, at Blidsberg, Sweden. He was brought to this country when a child, and was educated at the East Greenwich (Connecticut) Academy and at Wesleyan University, from which he was graduated in 1890. In 1890–91 he taught at a preparatory school in Middletown, and in 1894 he was an instructor in Clark University, from which he received the degree of doctor of philosophy. From 1894 to 1896 he was assistant professor of education and psychology at Indiana University and director of the laboratory; in 1896 he became associate professor; in 1902 he was made professor of education. In January, 1909, he became professor of education in Leland Stanford Junior University.

Professor Bergström's health having failed, the Carnegie Foundation, on January 20, 1910, at the request of the board of trustees of Leland Stanford Junior University, granted to him a disability allowance. Professor Bergström died in San Francisco on February 28, 1910.

JAMES HENRY CARLISLE

James Henry Carlisle was born on May 4, 1825, at Winnsboro, South Carolina, and was educated at the Mount Zion Institute, Winnsboro, and at the University of South Carolina, from which he was graduated in 1844. From 1845 to 1848

he was principal of the Odd Fellows' Institute, Columbia, South Carolina, and from 1848 to 1853 principal of the Columbia Male Academy. In 1853 he was elected professor of mathematics and astronomy in Wofford College, and held the presidency of that institution during the years 1875 to 1902.

Professor Carlisle was a delegate to the South Carolina Constitutional Convention of 1860, and signed the ordinance by which South Carolina repealed the ratification of the Constitution of the United States and declared its secession from the Union. In 1863–64 he was a member of the House of Representatives of South Carolina.

In recognition of his long service to education in South Carolina, the Carnegie Foundation, on September 28, 1906, granted to Professor Carlisle a retiring allowance. He died in Spartanburg on October 21, 1909.

NOAH KNOWLES DAVIS

Noah Knowles Davis was born on May 15, 1830, in Philadelphia, Pennsylvania. He was graduated from Mercer University in 1849 and received the degree of master of arts in 1853. From 1852 to 1859 he was professor of natural science in Howard College, Birmingham, Alabama; from 1859 to 1865 he was principal of the Judson Female Institute, Marion, Alabama; and during the years 1865 to 1873 he was president of Bethel College at Russellville, Kentucky. In 1873 he was called to be professor of philosophy in the University of Virginia.

Professor Davis received the honorary degree of doctor of philosophy from Mercer University in 1885, and the degree of doctor of laws from Baylor University in 1872 and from Furman University in 1909. Among his publications are *The Theory of Thought* (1880); *Elements of Deductive Logic* (1890); *Elements of Psychology* (1892); *Elements of Inductive Logic* (1895); *Elements of Ethics* (1900); and *Elementary Ethics* (1900).

On account of his standing of high scholarship, the Carnegie Foundation, on June 21, 1906, granted to Professor Davis a retiring allowance. He died at Charlottesville, Virginia, on May 3, 1910.

AMOS EMERSON DOLBEAR

Amos Emerson Dolbear was born on November 10, 1837, at Norwich, Connecticut. He worked as a machinist until, at the age of twenty-six, he entered the Ohio Wesleyan University, from which he was graduated in 1866. He was instructor in chemistry at the University of Michigan in 1866–67, and received from the university the degrees of master of arts and mechanical engineer. In 1867–68 he was professor of natural history at Kentucky University, from 1868 to 1874 he was professor of physics and chemistry at Bethany College, and in 1874 he was

made professor of physics and astronomy in Tufts College. In 1873 and 1874 he was elected mayor of Bethany, West Virginia.

Professor Dolbear invented the writing telegraph (1864); the electric gyroscope (1867); the magnetic telephone (1876); the static telephone (1879); the air-space telegraph cable (1882); and the spring balance ammeter (1889). He was intimately connected with the history of the transmission of human speech from a distance; but the federal courts in his suit against the Bell Telephone Company decided in favor of the priority of Dr. Bell. Similarly Professor Dolbear was among the pioneers in the field of wireless telegraphy.

He was awarded a bronze medal for acoustic apparatus at the Centennial Exposition in Philadelphia in 1876; a silver medal for a static telephone at the Paris Exposition of 1881, and a gold medal at the London Exposition of 1882. He was a member of the jury of awards at the World's Columbian Exposition in 1893. He received the honorary degree of doctor of philosophy from the University of Michigan in 1883, and the degree of doctor of laws from Tufts College in 1902 and from the Ohio Wesleyan University in 1905. He was a Fellow of the American Association for the Advancement of Science and a Fellow of the American Academy of Sciences. He published *Chemical Tables; The Art of Projecting; The Speaking Telephone; Modes of Motion; Natural Philosophy;* and *Matter, Ether and Motion.*

Upon the nomination of the board of trustees of Tufts College, the Carnegie Foundation, on July 26, 1906, granted to Professor Dolbear a retiring allowance. He died in Medford, Massachusetts, on February 23, 1910.

CHARLES ANTHONY GOESSMANN

Charles Anthony Goessmann was born on June 13, 1827, at Naumburg in the Electorate of Hesse-Cassel. He was educated at the *Gymnasium* of Fritzlar in the same electorate, and at the University of Göttingen, from which he received the degree of doctor of philosophy in 1853. From 1851 to 1857 he was assistant in the royal chemical laboratory at the University of Göttingen, from 1854 to 1857 being also lecturer on chemistry and pharmacy. In 1857 he came to the United States as the manager and chemist of a sugar refinery in Philadelphia; in 1862 he became chemist to the Onondaga (New York) Salt Company, which office he held until 1869. In the years 1866–68 he was also professor of chemistry at the Rensselaer Polytechnic Institute.

In 1869 Professor Goessmann was elected professor of chemistry in the Massachusetts Agricultural College. From 1882 to 1895 he was director and chemist of the Massachusetts Agricultural Experiment Station. From 1873 until his retirement he was chemist to the Massachusetts State Board of Agriculture; from 1886 until the same period he was analyst to the Massachusetts State Board of Health; in

1899 he was made honorary representative of the United States Department of Agriculture to study certain scientific matters in France and Germany. He was a member of the Physico-Medical Society of the University of Erlangen, an honorary member of the New York State Agricultural Society, and a Fellow of the American Association for the Advancement of Science. In 1886–87 he was president of the American Chemical Society, and in 1899 Amherst College conferred upon him the degree of doctor of laws. Professor Goessmann was the author of many papers on chemical subjects, his researches in salt and the chemistry of natural brines, with the relation of these to agriculture, being esteemed of particular value.

On December 10, 1906, the Carnegie Foundation, on account of Professor Goessmann's services as one of the founders of the science of agricultural chemistry, granted to him a retiring allowance. He died in Amherst, Massachusetts, on September 1, 1910.

JONATHAN HAMNETT

Jonathan Hamnett was born in 1816 and graduated from Allegheny College in 1839. He was elected professor of the Latin language and literature in Allegheny College in 1845, and served continuously as professor and as librarian until his retirement in 1906, sixty-one years later.

The Carnegie Foundation, on June 21, 1906, on account of Professor Hamnett's long and faithful service, granted to him a retiring allowance. He died in Meadville, Pennsylvania, on August 29, 1910.

WILLIAM TORREY HARRIS

William Torrey Harris was born on September 10, 1835, at North Killingly, Connecticut. He was educated at the Phillips Andover Academy and at Yale College, matriculating there with the class of 1858. He left college in the middle of his junior year; later Yale granted to him his degree as if he had graduated in course.

After teaching several years in St. Louis, Mr. Harris was appointed in 1859 principal of the Clay School, and several years later was promoted to be assistant superintendent of schools. In 1867 he was appointed superintendent, and held this office for the following thirteen years. In 1866 he founded the Philosophical Society of St. Louis; in 1867 he established the St. Louis *Journal of Speculative Philosophy*, of which he was editor until 1880; in 1869 he received the honorary degree of master of arts from Yale University, and in 1870 the degree of doctor of laws from the University of Missouri. He was elected president of the National Association of School Superintendents in 1873; in 1875 he was elected president of the National Education Association; he received from the French government at the Paris Exposition of 1878 the honorary title of *Officier de l'Académie*.

In 1880 Dr. Harris resigned as Superintendent of Schools of St. Louis and assisted in the founding of the School of Philosophy at Concord, Massachusetts, in which he lectured. He represented the United States Bureau of Education at the International Congress of Education at Brussels in 1880, and at the Paris Exposition of 1889, when he was created by the French government an *Officier de l'Instruction Publique*. In the same year he was appointed United States Commissioner of Education, and held that office until his resignation in 1906.

Dr. Harris was one of the editors of the *Appleton School Readers*, the editor of *Appleton's International Education Series*, the editor of the department of philosophy of *Johnson's Encyclopaedia*, and the editor-in-chief of the latest edition of *Webster's Dictionary*. He published in 1889 *Introduction to the Study of Philosophy* and *The Spiritual Sense of Dante's Divina Comedia*, in 1890 *Hegel's Logic: A Book on the Genesis of the Categories of the Mind;* in 1897 he edited the A. E. Kroeger translation of Fichte's *Science of Ethics*, and in 1898 he published *Psychologic Foundation of Education*. He was a member of the Committee of Fifteen of the National Education Association, and chairman of the sub-committee on the Correlation of Studies; he was also chairman of the committee on Rural Schools of the association, writing the report of the sub-committee on Instruction and Discipline. In 1893 Dr. Harris received the degree of doctor of laws from Brown University, in 1894 from the University of Pennsylvania, in 1895 from Yale University, and in 1899 from the University of Jena.

At the first meeting of the executive committee, on May 9, 1906, Dr. Harris was invited, on account of his "long service to education and to the advancement of learning in this country," to become the "first recipient of a retiring allowance from the Carnegie Foundation for the Advancement of Teaching." Dr. Harris died in Providence, Rhode Island, on November 5, 1909.

WILLIAM JAMES

William James was born on January 11, 1842, in New York City. He was educated in private schools in New York and Europe and by tutors, and entered the Lawrence Scientific School of Harvard University in 1861. In 1864–65 he accompanied Agassiz, under whom he had studied at Harvard, upon the Thayer Expedition to Brazil, making a specialty of the study of plants and fishes. Soon after his return he gave up the intention of devoting himself to these subjects, and entered the medical school of Harvard University, from which he was graduated in 1870.

In 1872 he was appointed instructor in physiology in the Harvard medical school; in 1873 his appointment was changed to instructor of anatomy and physiology; and in 1876 he was made assistant professor of physiology. In 1880 he was transferred from the medical school to Harvard College and appointed assistant professor of

philosophy; in 1885 he became professor of philosophy, and in 1889 professor of psychology. In 1897, owing to a shifting of Professor James' direct interest from psychology in itself to some applications of psychology to life, his academic title was again changed by Harvard University to that of professor of philosophy. He continued to occupy this chair until his retirement in 1907.

In 1890 Professor James published in two volumes his *Principles of Psychology.* In 1892 he published *Psychology—Briefer Course;* in 1897, *The Will to Believe and Other Essays in Popular Philosophy;* in 1898, *Talks to Teachers on Psychology and to Students on Some of Life's Ideals;* and in 1899, *Human Immortality—Two Supposed Objections to the Doctrine,* being the lecture at Harvard University on the Ingersoll Foundation for 1899.

During the years 1899–1901 Professor James delivered the Gifford Lectures at the University of Edinburgh, published in 1902 under the title *The Varieties of Religious Experience.* In 1907 appeared *Pragmatism—A New Name for Some Old Ways of Thinking.* In 1908 Professor James delivered the Hibbert Lectures at the University of Oxford, which were published as *A Pluralistic Universe.* In 1909 appeared *The Meaning of Truth.*

Professor James was one of the founders, in 1884, of the American Society for Psychical Research. He was president of the International Society for Psychical Research and President of the American Psychological Society. He was a member of the Academy of Moral and Political Sciences of the Institute of France, of the Royal Prussian Academy of Sciences, of the Royal Danish Academy of Sciences, of the *Accademia de Lincei,* of the *Reale Instituto Lombardo,* of the British Academy, and of the National Academy of Sciences. He received the degrees of doctor of philosophy and doctor of literature from the University of Padua in 1893; doctor of laws from Princeton University in 1896, the University of Edinburgh in 1902, and from Harvard University in 1903; doctor of science from the University of Edinburgh in 1908, from the University of Geneva in 1909, and the degree of doctor of literature from the University of Durham in 1908.

Upon the nomination of the board of fellows of Harvard University, the Carnegie Foundation, on July 9, 1907, granted to Professor James a retiring allowance, which on account of his distinguished service was fixed at the maximum amount permitted by the rules. Professor James died at Chocorua, New Hampshire, on August 26, 1910.

ADELIA ANTOINETTE FIELD JOHNSTON

Adelia Antoinette Field Johnston was born on February 5, 1837, at Lafayette, Ohio. She was educated at Grand Seminary, and at Oberlin College, from which she was graduated in 1856. After serving for a number of years as principal of academies in Ohio and New England, Mrs. Johnston, in 1870, was elected prin-

cipal of the Woman's Department of Oberlin College, her title being changed in 1894 to that of Dean of the Woman's Department. In 1878 she was also made instructor in history, and in 1890 professor of mediaeval history. In 1900 she resigned the office of dean. In 1873 she received the honorary degree of master of arts from Hillsdale College, in 1878 the same degree from Oberlin College, and in 1906 the degree of doctor of laws from the Western Reserve University. In 1900 she was elected by the alumni a trustee of Oberlin College.

On May 2, 1907, upon the nomination of the board of trustees of Oberlin College, the Carnegie Foundation granted to Mrs. Johnston a retiring allowance. She died in Oberlin on July 22, 1910.

JOHN MACNIE

John Macnie was born on January 8, 1836, at Sterling, Scotland. He was graduated from the University of Glasgow in 1860, and until 1867 he was engaged in secondary school teaching in Scotland. In 1867 he came to the United States as a teacher of the classics and of mathematics at Sigler's Preparatory School, Newburgh, New York, where he remained until 1885, except during the years 1877–79, when he was principal of Staples Academy, Westport, Connecticut. In 1874 he received the honorary degree of master of arts from Yale University.

In 1885 Mr. Macnie was elected professor of modern languages in the University of Dakota (since 1889 the State University of North Dakota). He published in 1876 a text-book on *The Theory and Solution of Algebraic Equations*, which has been used at West Point and in other institutions where the higher mathematics are extensively cultivated. In 1885 he published Macnie's *Geometry*. In 1883 there appeared by him *The Diothas*, one of the earliest of the books of social forecast.

On account of his usefulness to higher education in the Dakotas, the Carnegie Foundation, on June 4, 1909, granted to Professor Macnie a retiring allowance. He died in Minneapolis on October 30, 1909.

EDWARD HUNTINGTON MERRILL

Edward Huntington Merrill was born in 1835 on a farm near Kirkland, New York. He was graduated at Oberlin College in 1859 and from the Oberlin Theological Seminary in 1861, and afterwards was ordained a minister of the Congregational Church. In 1860 he became principal of the Ripon Academy, and in 1863 he was made professor of Greek in Ripon College. He was elected president of the college and professor of philosophy in 1876, and resigned the presidency in 1891, retaining his professorship of philosophy. He received the degree of doctor of laws from Lawrence College in 1876 and from Middlebury College in 1893.

Upon the nomination of the board of trustees of Ripon College, the Carnegie Foundation, on June 7, 1906, conferred upon Professor Merrill a retiring allowance. He died at Ripon, Wisconsin, on February 23, 1910.

ALEXANDER LOCKHART NELSON

Alexander Lockhart Nelson was born on August 21, 1827, on a farm near Staunton, Virginia. He was graduated from Washington College (now Washington and Lee University) in 1849, and from the University of Virginia with the degree of master of arts in 1853.

In the academic year 1852–53 he was assistant professor of mathematics in the University of Virginia, and in the year 1853–54 he was acting professor of mathematics. In 1854 he was elected professor of mathematics in Washington College. Upon the completion, in 1904, of the fiftieth year of his occupancy of his chair, the alumni of Washington and Lee University presented to Professor Nelson a silver service. In 1893 he wrote the chapter on *Surfaces of the Second Order* for Nichol's *Analytic Geometry*.

The Carnegie Foundation, on June 7, 1906, on account of Professor Nelson's long and faithful service to higher education in Virginia, granted to him a retiring allowance. He died in Lexington, Virginia, on August 31, 1910.

JAMES STANLEY NEWMAN

James Stanley Newman was born in 1836 at Hilton, Virginia, and was graduated from the University of Virginia in 1859. He served in the confederate army during the civil war, and from then until 1875 he engaged in farming. In 1875 he became secretary of the department of agriculture of the state of Georgia, and in 1883 was elected professor of agriculture in the Alabama Polytechnic Institute. In 1884 he was appointed state agent in Alabama for the United States Department of Agriculture, and later was appointed director of the Alabama agricultural experiment station. He organized the Alabama State Agricultural Society and was its president for three years. In 1891 he was made professor of agriculture in the Clemson Agricultural College. He was also vice-director of the South Carolina agricultural station.

On September 28, 1906, the Carnegie Foundation, on account of Professor Newman's long service to agricultural education in the south, granted to him a retiring allowance. He died at Walhalla, South Carolina, on May 11, 1910.

WILLIAM HARMON NILES

William Harmon Niles was born on May 18, 1838, at Northampton, Massachusetts. He was educated at the Wesleyan Academy at Wilbraham, Massachusetts, at Harvard University, from which he received the degree of bachelor of science in 1866, and at Yale University, from which he was graduated in 1867 with the degree of bachelor of philosophy. In 1870 he received the degree of master of arts from Wesleyan University. He was appointed in 1871 professor of physical geography at the Massachusetts Institute of Technology, and in 1878 was made professor of geology, which chair he occupied until his resignation in 1902. He was also appointed in 1879 professor of geology at Boston University, and in 1888 professor of geology at Wellesley College.

Professor Niles served as president of the Boston Society of Natural History, the New England Meteorological Society, and the Appalachian Mountain Club. He was a trustee of the Peabody Museum of Archaeology, a Fellow of the American Academy of Arts and Sciences, and of the Geological Society of America. He published *Geological Foundations of the Burlington Limestone; Shells from the "Till" in Boston Harbor; Traces of Ancient Operations in the Oil Regions of Pennsylvania; Peculiar Phenomena observed in Quarrying; Agency of Glaciers in the Excavations of Valleys and Lake Basins; Expansions, Movements, and Fractures of Rocks;* and *Zones of Physical Features upon the Slopes of Mountains.*

Upon the nomination of the board of trustees of Wellesley College, the Carnegie Foundation, on March 26, 1908, granted to Professor Niles a retiring allowance. He died in Boston on September 13, 1910.

WILLIAM ALFRED PACKARD

William Alfred Packard was born on August 26, 1830, at Brunswick, Maine. He was graduated from Bowdoin College in 1851. In 1852–53 he was a teacher in the Phillips Andover Academy, and in 1853–54 he was a tutor at Bowdoin College, receiving in the latter year the degree of master of arts. In 1857 he was graduated from the Andover Theological Seminary, and spent the following year at the University of Göttingen.

Mr. Packard was appointed instructor of modern languages at Bowdoin College in 1859 and professor in 1860. In 1863 he became professor of the Greek language and literature in Dartmouth College, and in 1870 was elected professor of the Latin language and literature in Princeton University. He received the honorary degree of master of arts from Dartmouth College in 1864 and from Princeton University in 1896; the degree of doctor of philosophy from Hamilton College in 1868, and the degree of doctor of divinity in 1894 from Bowdoin College.

Upon the nomination of the board of trustees of Princeton University, the Car-

negie Foundation granted, on June 7, 1906, a retiring allowance to Professor Packard. He died at Princeton on December 2, 1909.

WYLIE THOMAS PATTERSON

Wylie Thomas Patterson was born in 1841, in Orange County, North Carolina. He was educated in Tew's Military Academy in Hillsboro, North Carolina, and at the outbreak of the civil war enlisted in the Orange Guards, Twenty-seventh North Carolina Infantry. He rose to the rank of major and was taken prisoner at the battle of Antietam. He remained in prison for a year.

In 1882 Major Patterson was appointed bursar of the University of North Carolina, and on June 4, 1909, on account of his long service, the Carnegie Foundation granted to him a retiring allowance. Major Patterson died at Chapel Hill on January 10, 1910.

CARR WALLER PRITCHETT

Carr Waller Pritchett was born on September 4, 1823, in Henry County, Virginia. He was largely self-educated, his formal training being confined to one year's residence at St. Charles College, Missouri, supplemented in 1858–59 by special study of astronomy and mathematics at Harvard University. From 1850 to 1864 he served as professor of mathematics at Central College, Fayette, Missouri, acting also during these years twice as president. At the close of the civil war he reopened this college upon private support. In 1866 he founded Pritchett Institute at Glasgow, Missouri, of which he was president for seven years. In 1875 the Morrison Observatory was founded at Glasgow and Professor Pritchett became its director. He remained in this post for thirty years, until his retirement in 1907. In 1878 he discovered the great red spot on the planet Jupiter, and in 1879 he was elected a Fellow of the Royal Astronomical Society; he contributed many papers on astronomical subjects to journals in this country and in Europe.

Professor Pritchett belonged to the type of pioneer teachers whom the Foundation has sought especially to honor; for more than fifty years he was a college teacher in Missouri, and his students are scattered to-day over many western states. He died at Independence, Missouri, on March 18, 1910.

WILLARD BRADLEY RISING

Willard Bradley Rising was born on September 26, 1839, at Mecklenburg, New York, and was graduated from Hamilton College in 1864. He was instructor in chemistry in the University of Michigan from 1865 to 1867, receiving

in the latter year the degree of mechanical engineer from that institution. From 1867 to 1869 he was professor of the natural sciences in the College of California; in 1871 he received the degree of doctor of philosophy from the University of Heidelberg. Immediately thereafter he was elected professor of chemistry, mining, and metallurgy in the University of California, his title in 1881 being changed to professor of chemistry. Professor Rising was dean of the College of Chemistry in the University of California from 1896 to 1901, and again in 1903–04; he was a member of the jury of awards at the World's Columbian Exposition in Chicago in 1893, and at the Paris Exposition of 1900; he was a member of the Assay Commission at Philadelphia in 1903.

On June 4, 1909, the Carnegie Foundation, on account of Professor Rising's long service to education in California, granted to him a retiring allowance. He died in Berkeley on February 9, 1910.

WILLIAM EARL DODGE SCOTT

William Earl Dodge Scott was born on April 22, 1852, in Brooklyn, New York, and received from Harvard University the degree of bachelor of science in 1873. From 1874 to 1885 he was curator of the department of ornithology at Princeton University, and again from 1897 to 1905. Mr. Scott did field work for the British Museum, the American Museum of Natural History, and the Museum of Comparative Zoölogy, and was the author of *Bird Studies*, *Story of a Bird Lover*, *Birds of Patagonia*, and of many technical ornithological papers.

Mr. Scott's health having failed, the Carnegie Foundation, on December 2, 1907, granted to him a disability allowance. He died at Saranac Lake, New York, on August 22, 1910.

WILLIAM GRAHAM SUMNER

William Graham Sumner was born on October 30, 1840, at Paterson, New Jersey. He was educated in the public schools of Hartford, Connecticut, at Yale University, from which he was graduated with the class of 1863, and at the universities of Geneva, Göttingen, and Oxford. In 1867–69 he was a tutor in Yale University. In 1867 he was ordained to holy orders in the Protestant Episcopal Church by the Rt. Rev. John Williams, Bishop of Connecticut, and in 1869 became assistant to the rector of Calvary Church, New York City. During the years 1870–72 he was rector of the Church of the Redeemer, Morristown, New Jersey. In the fall of 1872 he returned to Yale University as professor of political and social science.

From 1873 to 1876 Professor Sumner was an alderman of the city of New Haven; in 1876 he was one of the body of citizens sent to investigate the election of presidential

electors in Louisiana; he received the degree of doctor of laws from the University of Tennessee in 1888 and from Yale University in 1909. In 1909 he was president of the American Political Science Association. Professor Sumner's publications include *A History of American Currency* (1874); *What Social Classes owe to Each Other* (1882); *Life of Andrew Jackson* (1882); *Collected Essays in Political and Social Science* (1883); *Problems in Political Economy* (1884); *Protectionism* (1885); *Life of Alexander Hamilton* (1891); *Life of Robert Morris* (1892); *The Financier and Finances of the Revolution* (1892); *A History of Banking in the United States* (1896); *Folkways* (1907).

Upon the nomination of the board of fellows of Yale University, the Carnegie Foundation, on April 8, 1909, granted to him a retiring allowance. Professor Sumner died in Englewood, New Jersey, on April 12, 1910.

EDWARD MULFORD TOMLINSON

Edward Mulford Tomlinson was born on October 22, 1842, at Roadstead, New Jersey. He was educated at Union Academy, Shiloh, New Jersey, and at Bucknell University, from which he was graduated in 1867. From 1867 to 1871 he was professor of Greek in Alfred University, and from 1872 to 1874 he studied at the universities of Leipsic and Berlin. During the years 1875–77 he was instructor in Greek, Latin, and German at the Germantown Academy, Philadelphia, and in 1881 he returned to Alfred University as professor of the Greek language and literature. In 1904 he received from Bucknell University the degree of doctor of laws and from Alfred University the degree of doctor of literature.

On February 6, 1908, on account of Professor Tomlinson's long service, the Carnegie Foundation granted to him a retiring allowance. He died in Alfred, New York, on August 27, 1910.

JABEZ BROOKS

Jabez Brooks was born on September 18, 1823, at Stockport, Cheshire, England; he was brought to the United States by his parents in 1840, and was educated at the Rock River Seminary, Mount Morris, Illinois, and at Wesleyan University, from which he graduated in 1850. During 1850 he was principal of the Watertown Seminary, Wisconsin, and was then ordained to the ministry of the Methodist Church; in 1854–57 he was principal of the preparatory department of Hamline University, and from 1861 to 1869 he was president of Hamline University. In 1869 he was appointed professor of Greek in the University of Minnesota, and served for forty years. He was twice a member of the Minnesota State Normal and of the Minnesota State Agricultural Boards, and served for many years as chairman of the committee on

Graduate Studies and Degrees of the University of Minnesota. In 1864 Lawrence College gave to him the degree of doctor of divinity.

Upon the nomination of the board of regents of the University of Minnesota, the Carnegie Foundation, on June 4, 1909, granted a retiring allowance to Dr. Brooks. He died on January 26, 1910.

REPORT OF THE TREASURER

REPORT OF THE TREASURER

To the Chairman and Trustees of the Carnegie Foundation for the Advancement of Teaching:

In accordance with the provisions of Article IX of the By-laws, the chairman of the board of trustees designated Messrs. Lybrand, Ross Bros. & Montgomery, certified public accountants, to audit the accounts of the Foundation for the last fiscal year. On October 11 the books of the treasurer were accordingly turned over to this firm, whose report follows.

New York, October 20, 1910.

To the Trustees of the Carnegie Foundation for the Advancement of Teaching, 576 Fifth Avenue, New York City:

Dear Sirs: We have the honor to report that we have audited the accounts of the Carnegie Foundation for the Advancement of Teaching for the fiscal year ended September 30, 1910, and have found them to be correct.

We ascertained that all the income from the investments had been collected and accounted for properly. We examined all of the expenditures and noted that they had been duly authorized and vouched. All changes in retiring allowances due to deaths of beneficiaries or the granting of new allowances were carefully traced from the minutes to the books of account. The cash and bank accounts were thoroughly verified, and all disbursements were vouched by an inspection of the paid cheques in addition to the examination of the vouchers. The securities belonging to the Foundation were inspected by us and found to be in order.

Statements are presented herewith showing the income and expenditure for the year and the financial condition of the Foundation as at the end of the year. A schedule of the investments is also submitted.

Very truly yours,

Lybrand, Ross Bros. & Montgomery.

INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDING SEPTEMBER 30, 1910

Income

From Securities in the Endowment Fund	$500,000.00
From other Investments	38,943.62
Accumulation of Bond Discount for the year to establish "Investment Value" of Miscellaneous Securities according to rules of New York State Banking Department for Investments, net	2,516.36
Interest on Bank Balances to September 30, 1910	2,421.22
Total Income for the Year	$543,881.20

Expenditure

RETIRING ALLOWANCES:			
To Professors, Officers, and Widows in Accepted Institutions	$325,199.02		
To Professors, Officers, and Widows not in Accepted Institutions	144,635.28	$469,834.30	
ADMINISTRATION:			
Salaries			
President	$15,000.00		
Treasurer	1,816.66		
Secretary and Assistant Treasurer	3,700.00		
Assistant Secretary, Washington, D. C.	50.00		
Bookkeeper	1,725.00		
Stenographer	1,170.00		
Filing Clerk	945.00		
Total Salaries	$24,406.66		
Traveling Expenses of Trustees, Officers, and Assistants	3,803.41		
Rent	4,000.00		
Postage	318.90		
Stationery and Office Supplies	823.91		
Printing minutes	161.85		
Professional Fees	619.72		
Sundries	1,061.08		
Depreciation of Office Furniture and Fixtures	553.62	$35,749.15	
Carried forward		$505,583.45	$543,881.20

Brought forward		$505,583.45	$543,881.20
PUBLICATION:			
Printing Fourth Annual Report	$4,398.40		
Salary of Assistant	2,000.00		
Bulletin Number Three	1,370.86		
Postage on Annual Report	620.00		
Postage on Bulletin Number Three	130.05		
Labor mailing Report and Bulletin	95.70		
Reprints	20.00	$8,635.01	
STUDY OF PROFESSIONAL EDUCATION:			
Bulletin Number Four:			
Printing	$12,762.00		
Postage	2,027.35		
Envelopes for Bulletin	135.10		
Labor mailing Bulletin	165.47		
Freight, express, cartage, and porterage	49.04		
Total cost of issuing Bulletin	$15,138.96		
Salary of Assistant	$3,000.00		
Traveling Expenses	3,284.36		
Rent	1,200.00		
Salary of Stenographer	1,017.00		
Stationery and Office Supplies	67.00		
Professional Fees	68.00		
Postage on correspondence	62.40		
Sundries	91.89	$23,929.61	
Total Expenditure for the Year ending September 30, 1910			$538,148.07
Accumulation of Surplus Income for the Year ending September 30, 1910			$5,733.13

BALANCE SHEET
AS OF SEPTEMBER 30, 1910

Assets

Cash in Bank and on Hand		$11,213.61
Investments, as per schedule annexed		10,921,171.89
Interest accrued on Investments		177,705.02
Office Furniture and Fixtures, Cost	$5,485.83	
Less Reserve for Depreciation	1,969.49	3,516.34
Salary and Traveling Expenses paid in advance, Study of Professional Education		450.00
Total Assets		$11,114,056.86

Liabilities

Endowment Fund		$10,000,000.00
Surplus Income:		
Accumulation to September 30, 1909	$1,108,107.32	
Accumulation for year ending September 30, 1910	5,733.13	1,113,840.45
Accounts Payable		216.41
Total Funds and Accumulations		$11,114,056.86

SUMMARY OF CASH RECEIPTS AND PAYMENTS
FOR THE YEAR ENDING SEPTEMBER 30, 1910

Cash Balance October 1, 1909	$48,637.13
Total Cash Receipts	651,726.83
	$700,363.96
Total Cash Payments	689,150.35
Cash Balance September 30, 1910	$11,213.61

INVESTMENTS

As of September 30, 1910

Par Value	*Securities*	*Investment Value*
$3,350,000	U. S. Steel Corporation, Series "B" Registered 50 year 5% Gold Bonds. Due April 1, 1951	$3,350,000.00
3,350,000	U. S. Steel Corporation, Series "D" Registered 50 year 5% Gold Bonds. Due April 1, 1951	3,350,000.00
3,300,000	U. S. Steel Corporation, Series "F" Registered 50 year 5% Gold Bonds. Due April 1, 1951	3,300,000.00
26,000	Atchison, Topeka & Santa Fé Ry. Co. Transcontinental Short Line, First Mtge. 4% 50 year Gold Bonds. Due July 1, 1958	24,567.50
25,000	Atchison, Topeka & Santa Fé Ry. Co. General Mtge. 4% Bonds. Due October 1, 1995	25,277.10
20,000	Baltimore & Ohio R. R. Co. Southwestern Division First Mtge. 3½% Gold Coupon Bonds. Due July 1, 1925	18,761.89
30,000	" " "	27,736.17
55,000	Baltimore & Ohio (Pittsburg, Lake Erie & West Virginia System) R. R. Co. Refunding 4% Gold Bonds. Due November 1, 1941	50,057.38
20,000	Central R. R. Co. of New Jersey. General Mtge. 5% Bonds. Due July 1, 1987	24,322.56
50,000	Chesapeake & Ohio Ry. Co. General Funding and Improvement Mtge. 5% Bonds. Due January 1, 1929	50,804.46
50,000	Chicago, Burlington & Quincy R. R. Co. Illinois Division, First Mtge. 4% Bonds. Due July 1, 1949	50,508.02
55,000	Chicago, Indiana & Southern R. R. Co. Consolidated Mtge. 4% Bonds. Due January 1, 1956	50,151.01
75,000	Chicago, Milwaukee & St. Paul Ry. Co. 25 year 4% Gold Bonds. Due July 1, 1934	70,346.15
50,000	The Lake Shore & Michigan So. Ry. Co. 25 year 4% Gold Coupon Bonds. Due September 1, 1928	49,289.42
60,000	New York Central & Hudson River R. R. Co. 5% Three year Gold Coupon Notes. Due February 1, 1910	*Paid off Feb. 1, 1910*
$10,516,000	*Amount carried forward*	$10,441,821.66

INVESTMENTS (CONTINUED)

Par Value	*Securities*	*Investment Value*
$10,516,000		$10,441,821.66
70,000	Northern Pacific, Great Northern, Chicago, Burlington & Quincy R. R. Co. Collateral Trust 4% Joint Bonds, Due July 1, 1921	65,939.19
30,000	" " "	29,347.68
30,000	Oregon Railroad & Navigation Co. 4% Consolidated Mtge. Gold Bonds, Due June 1, 1946	30,000.00
5,000	" " "	4,701.82
60,000	Oregon Short Line R. R. Co. 4% Refunding Gold Bonds, Due December 1, 1929	57,020.93
35,000	" " "	29,921.60
10,000	Pennsylvania R. R. Co. 5% Three Year Collateral Gold Notes, Due March 15, 1910	*Paid off March 15, 1910*
40,000	" " "	*Paid off March 15, 1910*
50,000	Pennsylvania Company 4% 15-25 year Gold Coupon Loan 1906, Due April 1, 1931. Entire issue redeemable at company's option on any interest date after April 1, 1921, on 90 days' published notice	49,277.17
20,000	Southern Pacific R. R. Co. First Refunding Mtge. 4% Gold Bonds, Due January 1, 1955	19,070.75
30,000	" " "	26,564.88
35,000	Union Pacific R. R. Co. 20 year 4% Convertible Gold Bonds, Due July 1, 1927	30,651.53
58,000	" " "	50,641.39
7,000	" " "	6,359.98
36,000	Union Pacific R. R. Co. First Lien and Refunding Mtge. 4% Bonds, Due March 1, 2008	34,713.73
50,000	The City of New York Registered 3½% Corporate Stock for replenishing the Fund for Street and Park Openings, Due May 1, 1954	45,139.58
$10,972,000	*Total*	$10,921,171.89

The treasurer has submitted from time to time to the executive committee statements of receipts and expenditures, which were printed and sent to all trustees. These statements, together with the report of the auditing firm just quoted, give a complete account of the financial operations of the Foundation for the period covered by this report.

ROBERT A. FRANKS, *Treasurer.*

INDEX

INDEX